THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

CATALOGUE

1974-1978

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THE

UNIVERSITY OF NORTH CAROLINA

AT WILMINGTON

1974

Supplement to Catalogue Issue 1973

Bulletin 26

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1974-78

THE UNIVERSITY OF NORTH CAROLINA
at Wilmington

Supplement to Catalogue Issue 1973
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The official catalogue of The University of North Carolina at Wilmington for the academic year 1974-75 is Bulletin 26, Catalogue Issue 1973, Announcements 1973-75.

This supplement to the catalogue contains academic announcements and information developed since the printing of the catalogue and is to be read in conjunction with the catalogue itself. While the contents of the supplement are mostly additions to the catalogue, some announcements which involve a change in academic policy have been included.

CALENDAR OF EVENTS
1974-75

FALL SEMESTER 1974

Aug. 25, Sun.	Dormitory opens.
Aug. 26, Mon.	Orientation.
Aug. 26, Mon.	Faculty meeting 4:00 p.m.
Aug. 27, Tues.	Registration. Late registration fee of $7.50 charged for all registering after this date.
Aug. 28, Wed.	Classes begin.
Sept. 2, Mon.	Labor Day holiday.
Sept. 4, Wed.	Last day for registration.
Sept. 4, Wed.	Last day to add a class or to drop a class without a grade.
Nov. 21, Thurs.	Faculty meeting 4:00 p.m.
Nov. 26, Tues.	Thanksgiving vacation begins 10:30 p.m.
Dec. 2, Mon.	Thanksgiving vacation ends 8:30 a.m.
Dec. 9, Mon.	Last day of classes.
Dec. 10, Tues.	Reading day.
Dec. 11-13 (Wed.-Fri.)	Final examinations.
Dec. 16-19 (Mon.-Thurs.)	Final examinations.
Dec. 19, Thurs.	Fall semester ends.

SPRING SEMESTER 1975

Jan. 5, Sun.	Dormitory opens
Jan. 6-7 (Mon.-Tues.)	Registration.
Jan. 7, Tues.	Late registration fee of $7.50 charged for all registering after this date.
Jan. 8, Wed.	Classes begin.
Jan. 10, Fri.	Last day for registration.
Jan. 10, Fri.	Last day to add a class or to drop a class without a grade.
Jan. 30, Thurs.	Faculty meeting 4:00 p.m.
Feb. 28, Fri.	Spring holidays begin 10:30 p.m.
Mar. 10, Mon.	Spring holidays end 8:30 a.m.
Mar. 26, Wed.	Easter vacation begins 10:30 p.m.
Apr. 1, Tues.	Easter vacation ends 8:30 a.m.
Apr. 10, Thurs.	Student assembly 11:30 a.m.-12:30 p.m.
Apr. 17, Thurs.	Faculty meeting 4:00 p.m.
May 2, Fri.	Last day of classes.
May 5-6 (Mon.-Tues.)	Final examinations.
May 7, Wed.	Reading day.
May 8-9, (Thurs.-Fri.)	Final examinations.
May 12-14 (Mon.-Wed.)	Final examinations.
May 14, Wed.	Spring semester ends.
May 18, Sun.	Commencement.

CALENDAR OF EVENTS - Continued

SUMMER SESSION 1975

First Term

June 1, Sun.	Dormitory opens.
June 2, Mon.	Registration
June 3, Tues.	Classes begin.
June 3, Tues.	Last day for registration.
June 3, Tues.	Last day to add a class.
June 5, Thurs.	Last day to drop a class without a grade.
July 4, Fri.	Independence Day holiday.
July 9, Wed.	Final examinations.
July 9, Wed.	First term ends.

Second Term

July 13, Sun.	Dormitory opens.
July 14, Mon.	Registration
July 15, Tues.	Classes begin.
July 15, Tues.	Last day for registration.
July 15, Tues.	Last day to add a class.
July 17, Thurs.	Last day to drop a class without a grade.
Aug. 15, Fri.	Final examinations.
Aug. 15, Fri.	Second term ends.

FALL SEMESTER 1975

Aug. 24, Sun.	Semester begins.
Dec. 18, Thurs.	Semester ends.

ADMISSIONS

Admission to the Freshman Class

The requirements for admission to The University of North Carolina at Wilmington are: (1) graduation from an accredited high school; (2) a satisfactory score on the Scholastic Aptitude Test of the College Entrance Examination Board; (3) a "C" average on all work attempted in grades 9-12; and (4) the following specific high school units:

English	4 units
Foreign Language (1 language)	2 units
Mathematics (Algebra I and Geometry, or Algebra II)	2 units
Social Science (to be elected from History, Sociology, or Political Science)	2 units
Science	1 unit

New students and transfer students who fail to meet minimum requirements for admission or students who fail to meet minimum requirements for retention may appeal to the University Admissions and Academic Standards Committee. Appeals must be received in writing by the University Admissions Office no later than 5:00 p.m. two working days prior to the opening of registration for the semester or summer session the student plans to attend.

TUITION DEPOSITS

Applicants for admission to the University are no longer required to remit an advance deposit for tuition and fees.

EXPENSES

Tuition and Fees

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

The Board of Trustees of the University reserves the right to change the charges for tuition, fees, and the room and board rate at any time without prior notice.

Charges Per Semester:

	In-State Students	Out-of-State Students
Tuition	$110.50	$900.00
Fees	70.00	70.00
Total	$180.50	$970.00

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EXPENSES - Continued

Other Fees:

Application Fee (to accompany application, nonrefundable)	$10.00
Late Registration Fee (payable after scheduled dates)	7.50
Transcript Fee (after the first)	1.00
Private Music Fee:	
one half-hour per week	37.50
two half-hours per week	67.50
Graduation Fee	10.00

Students scheduling fewer than ten semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students
1	$ 23.00	$ 102.00
2	35.00	193.00
3	47.00	284.00
4	59.00	375.00
5	120.50	515.50
6	132.50	606.50
7	144.50	697.50
8	166.00	798.00
9	178.00	889.00

The privileges of students taking fewer than five hours per semester will be restricted to class attendance and use of the library.

ROOM AND BOARD

Two plans are available for room and board, one providing meals five days per week and the other providing meals seven days per week. The rates per semester are:

Room and Board: 5 days - 15 meals	$ 517.00
Room and Board: 7 days - 21 meals	$ 533.00

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

Those interested in obtaining information should contact:

Office of Student Affairs
The University of North Carolina at Wilmington
Post Office Box 3725
Wilmington, North Carolina 28401

A $50 deposit must accompany the application.

SUMMER SESSION

Summer session tuition and fees and room and board rates will be announced in the summer session bulletin.

REFUNDS

A student who officially withdraws from the University on or before the last day of the registration period will receive a refund of the amount paid less a registration fee of $7.50

After the registration period the student will be charged 1/10 of the semester charges for each week in attendance plus a registration fee of $7.50. No refund will be made after the end of the ninth week.

Room and board agreements are in effect for the full academic year (August - May). Room and board deposit and charges will not be refunded except as provided for below:

a. Agreements may be canceled without forfeiture of deposit before July 1. Written notice of cancellation must be furnished to the Office of Student Affairs.
b. Between July 1 and August 25, the room and board agreement may be canceled with forfeiture of deposit. No refund of deposit and room rental charges will be made once the student has officially moved into the residence hall. A pro-rata refund on the dining portion only of the charges will be made to students who officially withdraw from the university.
c. Students entering into the room and board agreement in the fall semester may be released from the annual agreement without forfeiture of room charges in the following cases: (1) official withdrawal from the university for a period of at least one semester, (2) proof of legal marriage, (3) academic suspension (disciplinary suspension results in complete forfeiture of room and board fees), (4) graduation.
d. Spring Semester
    1. Students entering into the room and board agreement at mid-year are required to make a $50.00 deposit.
    2. Prior to November 30 this agreement may be canceled without forfeiture of deposit by written notification to the Office of Student Affairs.
    3. Between December 1 and December 31, this agreement may be canceled with forfeiture of deposit. No refund of deposit and room rental charges will be made once the student has officially moved into the residence hall. However, a pro-rata refund on the dining portion only of the charges will be made to students who officially withdraw from the university.

RESIDENCE STATUS FOR TUITION PAYMENT

1. GENERAL: To qualify for in-state tuition a legal resident must have maintained his domicile in North Carolina for at least the 12 months immediately prior to his classification as a resident for tuition purposes. In order to be eligible for such classifi-

RESIDENCE STATUS FOR TUITION PAYMENT - Continued

cation the individual must establish that his or her presence in the State during such twelve-month period was for purposes of maintaining a bona fide domicile rather than for purposes of mere temporary residence incident to enrollment in an institution of higher education; further, (1) if the parents (or court-appointed legal guardian) of the individual seeking resident classification are (is) bona fide domiciliaries of this State, this fact shall be prima facie evidence of domiciliary status of the individual applicant and (2) if such parents or guardian are not bona fide domiciliaries of this State, this fact shall be prima facie evidence of non-domiciliary status of the individual.

University regulations concerning the classification of students by residence, for purposes of applicable tuition differentials, are set forth in detail in A Manual To Assist The Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes. Each enrolled student is responsible for knowing the contents of that Manual, which is the controlling administrative statement of policy on this subject. Copies of that Manual are available on request in the Office of Admissions and Records.

FINANCIAL AID

The primary aim of the financial aid programs administered by The University of North Carolina at Wilmington is to provide assistance to students who, without aid, would be unable to continue their education. The financial need of a student is determined by the resources available to him in relation to university expenses. Requests for financial aid should be submitted to the director of student financial aid before March 1 for the next academic year.

Entering freshmen may be considered for all types of assistance by obtaining Parent's Confidential Statement forms from their high schools, having their parents complete the forms, and submitting them to the College Scholarship Service in Princeton, New Jersey, preferably before February 1 of the year of expected fall enrollment.

BASIC EDUCATIONAL OPPORTUNITY GRANT: Basic Grants are available to students who began their post high school education after April 1, 1973, and who are attending on a full-time basis. Basic Grants are available in amounts ranging up to approximately $800 during the 1974-75 academic year. To apply for a Basic Grant, one must complete a form called "Application for Determination of Basic Grant Eligibility." Copies of the application are available from public and private colleges, universities, community colleges, vocational schools, technical schools, and high schools, or by writing to P. O. Box 84, Washington, D. C., 20044.

NATIONAL DEFENSE STUDENT LOAN: Students who can demonstrate financial need and who are taking at least half-time course loads may borrow up to $1,000 each academic year to a total of $5,000. The repayment and interest period begins nine months after a student ends his studies. The loan bears interest at three per cent per year. Prior to graduation or other discontinuation of

FINANCIAL AID - Continued

studies, borrowers in the program are expected to have exit interviews with the business office to establish a repayment schedule.

PROSPECTIVE TEACHER SCHOLARSHIP LOANS: This scholarship loan fund is administered by the North Carolina State Department of Public Instruction. Application forms may be secured from the Financial Aid Office. Application must be made by March 1 of the year of expected fall enrollment. Recipients are eligible to receive $600 per academic year when enrolled in a full-time teacher education program. Repayment may be made by teaching in North Carolina Public Schools after graduation.

GENERAL SCHOLARSHIPS: The University of North Carolina at Wilmington offers tuition scholarships to those students who show financial need and who are maintaining a 2.0 or better quality point average.

OTHER SCHOLARSHIPS: Scholarship funds are administered through The University of North Carolina at Wilmington from a number of sources for students attending on a full-time basis and maintaining a 2.0 or better quality point average. Some of these scholarship funds are available from Belk-Beery Company, Eliza Collins, International Nickel Company, Lucille Murchison Marvin Foundation, The Rotary Club of Wilmington, The Auxiliary to the Medical Society of New Hanover County, Sue McCall Boone Memorial Fund, and Hercules. Other scholarships are available through various civic organizations.

ATHLETIC AWARDS: Athletic awards in varying amounts are available to qualified students who participate in intercollegiate basketball, baseball, golf, tennis, and wrestling. For information write to the Director of Athletics, The University of North Carolina at Wilmington.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT: Educational Opportunity Grants provide financial aid to students of exceptional financial need who, for lack of financial means of their own or of their families, would be unable to enter or remain in this institution without such assistance. Students who qualify may be eligible for a grant of up to $1,500 per year. For more information, contact the Director of Student Financial Aid.

COLLEGE FOUNDATIONS, INC.: Students accepted for enrollment or enrolled in good standing in an eligible college, university, technical, or vocational school may apply for funds to pay educational expenses. They may borrow up to $7,500 for undergraduate study or vocational/technical training, and this maximum may be extended to $10,000 for those who also borrow for graduate and professional study. The maximum loan for an academic year cannot exceed the total cost of education less other financial aid received. The amount of loan is determined by the foundation after consideration of the school's recommendation. Loan funds are provided to College Foundation, a non-profit corporation and the central lender in North Carolina, through the sale of revenue bonds issued by the State Education Assistance Authority, and by commercial banks, life insurance companies, educational institutions, and other special investors.

MEDICAL CARE COMMISSION LOANS: Loans are available to full-time nursing and medical technology students at The University of North Carolina at Wilmington through the North Carolina Medical

FINANCIAL AID - Continued

Care Commission, P. O. Box 25459, Raleigh, N. C., 27611 or by applying in the Financial Aid Office.

STUDENT EMERGENCY LOAN FUND: The University of North Carolina at Wilmington has a loan fund from which a student may borrow small amounts to meet educational and living expenses. This short term loan fund is administered by the Financial Aid Office.

COLLEGE WORK-STUDY: Students from low-income families are eligible to apply for employment by the University in on-campus jobs under federally supported work-study programs. Students may work up to ten hours weekly while attending classes full time. Summer employment is provided for those students who show evidence of financial need through PACE, INC. (Plan Assuring College Education in North Carolina), a program of off-campus work study during the summer months. Participants will be permitted to work up to 12 weeks, 40 hours per week, and will be paid an hourly wage. The student is expected to save 80 per cent of his earnings for college expenses during the following year. Applications may be obtained from the high school or the Financial Aid Office. Students interested in the program should submit their applications to the Financial Aid Office of The University of North Carolina at Wilmington no later than March 15.

STUDENT EMPLOYMENT: Full-time students may apply for employment on campus under state-supported work assistance programs. A limited number of positions are available each year.

GENERAL DEGREE REQUIREMENTS

BASIC STUDIES REQUIREMENTS

To qualify for the bachelor's degree from The University of North Carolina at Wilmington, all students must meet the basic studies requirements as outlined below, and in fulfilling these requirements must acquire a total of forty-five semester hours less exemptions.

A. Basic Skills
   Courses taken to satisfy basic skills may not be used to satisfy divisional requirements. These course requirements may be waived if the student demonstrates by examination an appropriate proficiency in these basic skills areas:
   1. English Composition (6 hours)
      Required: English 101 and 102
      Composition (3-3)
   2. Mathematics (3 hours)
      Required: One of the following courses: Mathematics 101, College Mathematics for the General Student (3) Mathematics 111, Precalculus Mathematics (3) Mathematics 115, Elementary Mathematical Analysis (3) or any three-semester hour mathematics course above these levels except Mathematics 305.
   3. Physical Education (2 hours)
      Required: Physical Education 101 and 102 (1-1)

B. Divisional Requirements
   1. Humanities (9-15 hours)

GENERAL DEGREE REQUIREMENTS - Continued

Required: A minimum of nine and a maximum of fifteen hours elected from at least two of the following areas:

(a) English
All courses except 245, 305, 306, 307, 308, and 345

(b) History
All courses listed in the catalogue

(c) Modern Languages
All courses listed in the catalogue

(d) Philosophy and Religion
All courses except 110 and 318

2. Creative Arts (3-6 hours)
Required: A minimum of three and a maximum of six hours elected from the following areas:

(a) Art
Art 201, 202, 203, and all beginning studio courses except 105, 106, and 107

(b) Drama and Speech
Drama and Speech 115, 215, 221, and 222, and 235

(c) Music Education
Music 101, 102, 105, 115, 116, 134, and 303

(d) English
English 307 and 308

3. Natural Science and Mathematics (7-12 hours)
Required: A minimum of seven and a maximum of twelve hours including at least one course in a laboratory science elected from the following areas:

(a) Biology
All courses listed in the catalogue

(b) Chemistry
All courses except 107

(c) Mathematics
All courses except 101, 111, 115, and 305

(d) Physics
Physics 101, 102, 105, 106, 201, and 202

(e) Earth Sciences
Geography 135, 335, 430, and 432
All Geology courses

4. Social and Behavioral Sciences (3-9)
Required: A minimum of three and a maximum of nine hours elected from the following areas:

(a) Economics
Economics 205, 251, and 252

(b) Geography
All courses except 135, 335, 430, and 432

(c) Political Science
All courses listed in the catalogue

(d) Psychology
All courses listed in the catalogue

(e) Sociology-Anthropology
All courses listed in the catalogue

DEPARTMENTAL REQUIREMENTS

ACCOUNTING
(See Business and Economics)

BIOLOGY

Requirements for a concentration in Biology for the B. A. degree:

Biology 105, 205, 206, 495, and a minimum of 23 hours chosen from Biology 235 and courses numbered above 299. Collateral requirements are Chemistry 101-102 and a minimum of 16 hours chosen from the listed courses in at least two of the following areas: Chemistry 311-312, 465; Physics 101-102 or 105 or 201-202, 260; Geography-Geology 105, 115, 205, 230, 305, 432; Mathematics 211-212-213, 225, 265; Computer Science 205 or 211; Psychology 456, 457. A "C" or better average on Biology courses at the 300-400 level.

Requirements for a concentration in Biology for the B. S. degree:

Biology 105, 205, 206, 335, 335-51, 345 or 355 or 445, 455, 395, 495, and 11 additional hours in courses numbered above 299. Of these 11 hours at least 4 semester hours must be in advanced Botany and 4 in advanced Zoology offerings. Collateral requirements are Chemistry 101-102, 311-312; Physics 101-102 or 201-202; Mathematics 111-112 or 211-212. Two years of French or German are highly recommended. A "C" or better average on Biology courses at the 300-400 level.

Requirements for a concentration in Marine Biology for the B. S. degree:

Biology 105, 205, 206, 362, 365, or 485-3, 395, 446 or 485-2, 466, 495, and a minimum of 4 semester hours from courses numbered above 299. Collateral requirements are Chemistry 101-102; Physics 101-102 or 201-202; Geology 205; Mathematics 111-112 or another higher sequence; and a minimum of 7 semester hours selected from the following: Chemistry 311-312, 333 or 335, Earth Sciences 230, Geography-Geology 105, 305, 430, 432. A "C" or better average on Biology courses at the 300-400 level.

Requirements for a concentration in Medical Technology for the B. S. degree:

Biology 215, 425, and a minimum of 8 semester hours chosen from the following: Biology 335, 345, 445, and appropriate topics in 495. Chemistry 101-102, and 311-312. Satisfactory completion of the twelve-month Medical Technology Program at an affiliated hospital. Courses in Physics, Biochemistry, Quantitative Analysis, Computer Science, and Statistics are also highly recommended. A "C" or better average on courses taken at the University.

BUSINESS AND ECONOMICS

The Department of Business and Economics offers the B. S. degree in Accounting, Economics, and Business Administration. The concentration in Business Administration permits an emphasis in either management or marketing.

Requirements for a concentration in accounting for the B. S. degree:

ACG 201-202, ACG 206, ECN 251, ECN 252, MAT 225, BUS 301-302,

DEPARTMENTAL REQUIREMENTS - Continued

BUS 310, BUS 335, BUS 345, BUS 355, BUS 461-462, ECN 336, ACG 301-302, ACG 305, ACG 401, ACG 405, ACG 407.

Requirements for a concentration in Economics for the B. S. degree:

ACG 201-202, ACG 206, ECN 251, ECN 252, MAT 225, ECN 301-302 BUS 310, BUS 335, BUS 345, ECN 315, ECN 316, ECN 327, ECN 401, ECN 495, and

(a) Nine additional hours in Economics in courses numbered above 299, and

(b) Six hours in collateral electives selected with approval of faculty advisor.

Requirements for a concentration in Business Administration for the B. S. degree:

ACG 201-202, ACG 206, ECN 251, ECN 252, MAT 225, BUS 301-302, BUS 310, BUS 335, BUS 345, BUS 355, BUS 461-462, ECN 336, and one of the following:

(a) Students electing an emphasis in Management must take BUS 455 and two courses from BUS 356, BUS 357, BUS 358, BUS 436, and BUS 470. Upon approval of faculty advisor, nine additional hours in management related courses must be elected from Business, Accounting and/or Economics numbered above 299.

(b) Students electing an emphasis in Marketing must take BUS 445 and two courses from BUS 346, BUS 347, BUS 348, BUS 370, and BUS 449. Upon approval of faculty advisor, nine additional hours in marketing related courses must be elected from Business, Accounting, and/or Economics numbered above 299.

A "C" or above average is required on all courses taken in Accounting, Business and Economics.

Elective credits may not be used to satisfy the requirements for an additional concentration or emphasis in Business and Economics. An additional concentration or emphasis may be obtained by completing a minimum of 18 additional semester hours approved by the chairman of the Department of Business and Economics and beyond the 124 semester hours required for graduation.

Students planning to do graduate work in Business and Economics are advised to complete a mathematical sequence through Calculus and to broaden their programs by electing courses in such areas as Mathematics, Computer Science, Social Sciences, and Humanities.

CHEMISTRY

Requirements for a concentration in Chemistry for the B. A. degree:

Chemistry 101-102, 311-312, 325, 333 or 335, 355, 495, and 4 hours of advanced Chemistry, one of the Physics sequences, and two courses chosen from the following: advanced courses in Physics, advanced courses in Mathematics, and courses in Biology. A "C" or better average on Chemistry courses.

Requirements for a concentration in Chemistry for the B. S. degree:

Chemistry 101-102, 311-312, 311-91, 312-91, 321-322, 321-51,

DEPARTMENTAL REQUIREMENTS - Continued

and 322-51, 333 or 335, 355, 415, 435, 445, 495, and one advanced course in Chemistry to be approved by the department chairman. Physics 201-202 and Mathematics 315. A "C" or better average on Chemistry courses. Students working for the B. S. degree should arrange their work so as to take Chemistry 321-322 in the junior year. Two years of German are recommended.

The B. S. degree program in Chemistry is approved by the American Chemical Society.

EARTH SCIENCES - No Changes

ECONOMICS - (See BUSINESS AND ECONOMICS)

ELEMENTARY EDUCATION

TEACHER EDUCATION PROGRAM ADMISSION CRITERIA

Students who are admitted to the Teacher Education Program must be free of any chronic or acute mental or physical defect or illness which may prevent the person from performing the duties of a teacher. The Teacher Education Council may require the applicant to obtain health examinations upon referral to the University Health Service as a step in the screening and admission procedure.

Requirements for a concentration in Elementary Education for the B. A. degree:

Education 315, 325, 355, 361 or 461, 365, 460, and three courses selected from the following: 335, 345, 361 or 461 if not required elsewhere, 405, 415 and 425; Psychology 316, 320. Required collaterals are Art 201 or 202 or 203, 385; Drama and Speech 115 or 215; English 345 and one three hour course in literature; Geography 135, History 231, 232; Mathematics 305; Music 115, 325; Political Science 205; Physical Education 305, 385; Physics 305; and one additional course selected from Biology, Chemistry, Geology or Physics. One of the following groups: Language Arts (9 hours); Social Studies (three hours must be selected from Anthropology, Economics or Sociology (11 hours); Art (12 hours); Math (12 hours); Music (12 hours); or Physical Education (12 hours). Note: 34 semester hours from the list of collaterals may be used selectively to meet divisional requirements in basic studies.

ENGLISH - No Changes

ENVIRONMENTAL STUDIES

Requirements for a concentration in Environmental Studies for the B. A. degree:

Core: Environmental Studies 195, 495, Math 265 and CSC 211. Four courses representing four different disciplines selected from: Chemistry 333 (EVS 333); Physics 106 (EVS 106); Biology 205, 206; Geology 105; Geography 135. Three courses representing three different disciplines from: Political Science 305, 308; Sociology

DEPARTMENTAL REQUIREMENTS - Continued

205; Psychology 370 (EVS 370); Economics 305 (EVS 305).

Specialization: A minimum of 20 hours, taken from one of four options. All course sequences must be above the 299 level and approved by the Environmental Studies Chairman. A "C" or better average is required.

Option (1) Marine Science: A sequence of courses including Biology 362, 466; Geology 205, 305, and Geography 432.

Option (2) A disciplinary course sequence with an emphasis restricted to one of the following: Biology, Chemistry, Economics, Earth Sciences, Mathematics, Physics, Political Science, Psychology, Sociology.

Option (3) A substantive interdisciplinary sequence selected from either (a) The natural and mathematical sciences or (b) The social and managerial sciences.

Option (4) A topical multidisciplinary approach in which the student in conjunction with his advisor and the Environmental Studies Chairman designs his own specialization in order to investigate a specific environmental topic. The student will choose courses appropriate to the investigation and write a senior paper (EVS 490) at the completion of the project.

FRENCH
(See Modern Languages)

GEOGRAPHY
(See Earth Sciences)

GEOLOGY
(See Earth Sciences)

HISTORY

Requirements for a concentration in History for the B. A. degree:

History 111, 112, 231, 232, and 24 additional hours in History at the 300-400 level. A "C" or better grade in those History courses at the 300-400 level. Upper level work should encompass a broad range rather than specialization within one area of History; students are expected to complete the required lower level courses before taking upper level ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least 4 of the following areas: Anthropology, Economics, English, Modern Languages, Geography, Political Science, Philosophy and Religion, and Sociology. (A listing of these departmentally approved courses is available in the History Department.)

MANAGEMENT
(See Business and Economics)

MARINE BIOLOGY
(See Biology)

MARKETING
(See Business and Economics)

DEPARTMENTAL REQUIREMENTS - Continued

MATHEMATICS - No Changes

MEDICAL TECHNOLOGY
(See Biology)

MODERN LANGUAGES - No Changes

MUSIC EDUCATION

Substitute Music 337 for Music 327 in the requirements for a concentration in Music for the B. A. degree.

NURSING - No Changes

PHILOSOPHY AND RELIGION - No Changes

PHYSICAL EDUCATION - No Changes

PHYSICS

Add Physics 335 in the requirements for a concentration in Physics for the B. A. degree.

POLITICAL SCIENCE - No Changes

PSYCHOLOGY - No Changes

SOCIAL SCIENCE - No Changes

SOCIOLOGY

Requirements for a concentration in Sociology for the B. A. degree:

Sociology 105, 405, 406, 455, 490, and 18 additional hours, 12 of which must be at the 300-400 level; Computer Science 205; Mathematics 265. Additional knowledge of computer science and mathematics through calculus are recommended, particularly for those students who plan to attend graduate school in sociology or anthropology. Anthropology courses may be used to satisfy the 18 additional hours required in sociology. Collaterals will be decided upon in consultation with each advisee. A "C" or better average on each course at the 300-400 level.

The major specializations represented in the department are Sociology, Anthropology, Social Work, and Criminal Justice. Within Sociology some areas of emphasis are deviance, environmental studies, planning, change, population and urban ecology.

The department does offer some alternatives to the above requirements for students who opt to specialize in areas such as Social Work or Criminal Justice. These alternatives are periodically being updated and are always available in the department.

SPANISH
(See Modern Languages)

ADACEMIC REGULATIONS

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the Advanced Placement Program of the College Entrance Examination Board. A freshman who scores a grade of 5, 4, or 3 on the final examination in any field will receive appropriate college credit and advanced placement in that field. Students taking Advanced Placement Tests should have the test booklets and score reports sent to the Admissions Office for evaluation concerning placement and credit. Individual departments will determine the specific courses for which credit will be given.

Students who are talented and well-prepared, but who have not participated in the Advanced Placement Program in high school, may apply to participating departments for the Advanced Placement Test or the College-Level Examination. Every department for which such tests are available will offer them upon request to any student during two (2) scheduled testing periods each year.

Students who have been exempted with credit given at an accredited college or university may be exempted with credit given at The University of North Carolina at Wilmington on an individual basis, as determined by the appropriate department chairman. Students who have been exempted without credit will not be given exemption or credit, but may elect to take one of the above examinations for possible exemption with credit. Exemptions may be granted on an individual basis by the Vice Chancellor for Academic Affairs upon recommendation of the appropriate department chairman in those cases in which a student has demonstrated his knowledge of a particular field by subsequent course work.

GRADES AND REPORTS

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed within one calendar year from the end of the semester in which the incomplete was given; otherwise, the "I" becomes an "F."

GRADUATION

REQUIREMENTS FOR A DOUBLE MAJOR

A student may elect to major in two separate disciplines with the permission of the chairman of each of the departments and on the condition that the student meet all requirements for each major. The student who completes requirements for a double major will receive only one degree, but his record will indicate both majors at the time of his initial graduation.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree may receive a second baccalaureate degree if it is a different degree and a different

GRADUATION - Continued

major by fulfilling the following requirements:

(1) He must meet all the requirements for the second degree and major.
(2) He must complete a minimum of 30 hours in residence beyond the requirements for the first degree.

DESCRIPTION OF COURSES

ACCOUNTING
(See Business and Economics)

ANTHROPOLOGY
(See Sociology and Anthropology)

ARABIC
(See Modern Languages)

ART
(No Additional Courses)

BIOLOGY

COURSE ADDITIONS:

235. Genetics in Human Affairs (3)
Prerequisite: Biology 105. A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing an understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included. Three hours each week. Spring.

355. Plant Physiology (4)
Prerequisite: Biology 205. A study of the role of the environment in plant physiological processes. Topics include energy fixation and utilization, physiological stress, physiological adaptation, and plant interactions. Three lecture and three laboratory hours each week. Fall.

395. Methods of Biological Research (2)
Prerequisite: Biology 205 or 206 and one course in Mathematics (Mathematics 111 is recommended.) An introduction to the scientific method, hypothesis construction, design of experiments, data gathering techniques, and data analysis as it pertains to the biological sciences. The use of the computer as a tool in Biology will be practiced. Two hours each week. Spring.

446. Phycology (4)
Prerequisite: Biology 205. Taxonomy, morphology, physiology, and ecology of algae. Three lecture and three laboratory hours each week. Spring.

DESCRIPTION OF COURSES - Continued

465. Biochemistry (3)
Prerequisite: Chemistry 312. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; bio-energetics, regulatory mechanisms. Three hours each week. Fall.

470. Ecology of Human Populations (3)
Prerequisites: Biology 345 and 455 or 466. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles. Three hours each week. Fall.

IMPORTANT CHANGES IN COURSES ALREADY LISTED

455. Ecology (4)
Prerequisite: Biology 205 and 206. Ecological principles pertaining to both plants and animals. May not substitute for Biology 466 in degree requirements and credit will be given for only one of 455 and 466. Two lecture and four laboratory hours each week.

466. Marine Ecology (4)
Prerequisite: Biology 205 and 206. Ecological principles pertaining to both plants and animals with special emphasis on the marine environment. May not substitute for Biology 455 in degree requirements and credit will be given for only one of 455 and 466. Two lecture and four laboratory hours each week.

485. Special Topics in Advanced Biology (4-6)
Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit. Offered on demand during the summer session.

Add the following:

4. Tropical Biology. Prerequisites: Biology 205, 206, and consent of instructor. A field-oriented course offered in tropical areas of Latin America; emphasis is on distribution, taxonomy, and ecology of aquatic and terrestrial organisms.

491. Directed Individual Study (1-6)
Prerequisite: Biology 395, junior or senior standing, consent of instructor, and consent of department chairman.

BUSINESS AND ECONOMICS

ACCOUNTING

COURSE ADDITIONS

401. Accounting for Business Combinations (3)

DESCRIPTION OF COURSES - Continued

Prerequisites: ACG 301-302. A study of accounting problems in mergers and consolidations, parent-subsidiary interrelationships, branch and foreign operation. Emphasis on consolidated financial statements.

402. Specialized Accounting Problems (3)
Prerequisites: ACG 301-302. The application of accounting theory to specialized problems, including partnerships, fiduciary relationships, bankruptcy and reorganization, liquidation, governmental entities, and other non-profit service entities. Three hours each week.

COURSE DELETION

406. Advanced Accounting

BUSINESS ADMINISTRATION

COURSE ADDITIONS

235. Personal Finance (3)
Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings, and investments. Recommended elective for non-business majors. Three hours each week.

365. Insurance and Risk Management (3)
(Formerly BUS 365 - Principles of Insurance)
Prerequisite: BUS 355 or consent of instructor. The uses of insurance are analyzed as aids in management decision making. Problems relating to risk assumption, transfer and reduction. Three hours each week.

453. Management of Small Business (3)
Prerequisite BUS 355. A study of the special problems, analysis, and decision making involved in the development and management of small business. Emphasis on the professional small business manager and entrepreneur. Three hours each week.

495. Senior Seminar (3)
Prerequisite: Business and Economics Core. Special topics in management and marketing not regularly dealt with in other courses. Three hours each week.

ECONOMICS

COURSE NUMBER CHANGE

105. Formerly ECN 205. Course description to remain the same. This course is more appropriately offered at the freshman level.

DESCRIPTION OF COURSES - Continued

305. Environmental Economics (3)
(Formerly ECN 405)

CHEMISTRY

COURSE TITLE AND DESCRIPTION CHANGE:

105. Chemistry and Man (4)
Introduction to some basic principles of chemistry with particular attention to the significance of chemistry to modern society. Topics of discussion will include environmental pollution, chemical energy sources, biological chemistry and the chemistry of consumer products. Three lecture and three laboratory hours each week. Fall.

COURSE ADDITION:

333. Analytical Chemistry in Environmental Problems (4)
Prerequisite: Chemistry 102. The theory and practices of (a) sampling and sample preparation (air, water, etc.), (b) selective methods of quantitative gravimetric and volumetric analysis, (c) instrumental techniques, and (d) monitoring systems. Two lecture and four laboratory hours each week. Fall.

PREREQUISITE CHANGES:

435. Prerequisite: Chemistry 333 or 335 and Chemistry 321, 322.

445. Prerequisite: Chemistry 321, 322.

465. Prerequisite: Chemistry 312.

COMPUTER SCIENCE
(See Mathematics and Computer Science)

DRAMA AND SPEECH
(No Additional Courses)

EARTH SCIENCES
(No Additional Courses)

ENGINEERING
(No Additional Courses)

GEOGRAPHY
(No Additional Courses)

GEOLOGY
(No Additional Courses)

EDUCATION

355. Books and Materials for Early Childhood Education (3)
The selection and evaluation of books written for children.

DESCRIPTION OF COURSES - Continued

Appraisal of illustrations and other instructional media for preschool and primary children; their functions and correlation with the early childhood curriculum will be studied.

365. Teaching of Arithmetic for Teachers, Grades K-3 (3)
Prerequisite: Education 315. Study of methods and materials for the teaching of arithmetic kindergarten through 3rd grades. Different theories of thinking and language development and implications for the teaching of arithmetic in the early grades will be studied.

ENGLISH

COURSE ADDITIONS:

380. Contemporary Eastern and African Literature (in translation) (3)
Prerequisite: English 102. Representative works of the 20th Century primarily since World War II. Three hours each week. Fall 1974 and alternate years.

385. Soviet Russian Literature (in translation) (3)
Prerequisite: English 102. Interpretation of Russian literature since the Revolution, including an awareness of the effects of politics on that literature. Includes such writers as Mayakovsky, Bulgakov, Pasternak, Solzhenitsyn, and Yevtushenko. Spring 1974 and alternate years.

ENVIRONMENTAL STUDIES

106. (Physics 106) Environmental Physics (3)
A study of the environment and the interrelation of its physical systems. Emphasis on energy sources, efficiency of their use and the effect on the environment. Three lecture hours each week. Spring.

195. Introduction to Environmental Studies (3)
Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on current environmental problems.

291. Directed Individual Study (1-3)
Freshman or sophomore standing and consent of the Environmental Studies Chairman.

305. (Economics 305) Environmental Economics (3)
Prerequisite: Economics 251, 252, or 205 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternative involving economic

DESCRIPTION OF COURSES - Continued

incentives. Three hours each week.

333. (Chemistry 333) Analytical Chemistry in Environmental Problems (4)
Prerequisite: Chemistry 102. The theory and practice of sampling techniques and sample preparation; the classical methods of quantitative analysis - gravimetric and volumetric analysis; selected instrumental techniques; and automatic monitoring systems will be considered. Two hours lecture, four hours laboratory each week.

370. (Psychology 370) Environmental Psychology (3)
Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment.

490. Senior Project (1-6)
Prerequisite: Senior standing and permission of instructor
A research project and seminar under the supervision of a committee of Environmental Studies faculty. The project should involve the investigation of a current problem in the Environmental Studies field, and the preparation of a written report on the findings.

491. Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of the Environmental Studies Chairman. (See page 28.)

FRENCH
(See Modern Languages)

GEOGRAPHY
(See Earth Sciences)

GEOLOGY
(See Earth Sciences)

GERMAN
(See Modern Languages)

HISTORY

TITLE CHANGE:

435. Early United States Republic (3)

MANAGEMENT
(See Business and Economics)

MARINE BIOLOGY
(See Biology)

DESCRIPTION OF COURSES - Continued

MARKETING
(See Business and Economics)

MATHEMATICS AND COMPUTER SCIENCE

MATHEMATICS

COURSE ADDITIONS:

428. Introduction To Applied Mathematics (3)
Prerequisite: Mat 315 or consent of instructor. Mathematical models of physical, biological, social, and communication phenomena are formulated, analyzed, and interpreted. All interested students and faculty are invited to participate in the choice of problems and methods, and in the conduct of the course. Three hours each week. Offered on demand.

495. Seminar in Mathematics (1)
Discussion of Selected Topics and Problems. One hour each week. Spring.

COURSE DELETION:

275. Introduction To Mechanics (3)

COMPUTER SCIENCE

COURSE ADDITION:

325. Introduction To Numerical Algorithms
Same as Mat 325. Three hours each week. Offered on demand.

MEDICAL TECHNOLOGY
(See Biology)

MODERN LANGUAGE

FRENCH

COURSE ADDITION:

105. French for Tourists (3)
General interest course, but designed specifically for those planning to travel in a French-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Offered on demand.

DESCRIPTION OF COURSES - Continued

SPANISH

COURSE ADDITION:

105. Spanish for Tourists (3)
General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs.

MUSIC EDUCATION

COURSE ADDITIONS:

083. UNC-W Chamber Singers (1)
Select group drawn from the Chorus (086) by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsals per week. Fall and Spring.

084. Jazz Ensemble (1)
The study and performance of modern jazz techniques and interpretation of popular styles, including instruction in improvisation. Members will be chosen from the Wind Ensemble (Mus 085). Permission of instructor. Two hourly rehearsals per week. Fall and Spring.

105. Rudiments of Music (3)
A general survey of the basic materials of music. This would include the study of musical rudiments, listening experiences, sight singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for Music Theory 101, and for students who wish to increase their knowledge of music. Summer.

134. Choral Workshop (3)
Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening. Summer.

303. Electronic Music (3)
Prerequisite: Consent of instructor. Basic course in synthesizer techniques utilizing the synthi AKS with touch-sensitive keyboard and computer memory bank. Three lecture-laboratory hours each week. Accumulative credit. Fall and Spring.

DESCRIPTION OF COURSES - Continued

NURSING

CREDIT HOURS CHANGE:

110. Six semester hours credit.

PHILOSOPHY AND RELIGION

COURSE ADDITIONS:

309. Aristotle (3)
An examination of Aristotle's Philosophy through selected texts (De Anima, Ethics, Metaphysics, and Topics) supplemented with contemporary philosophical criticisms. Aristotle's criticisms of Plato will be discussed, as well as problems of interpretation of such topics as weakness of will, nature of the soul, Endoxa (received opinion) and the use of dialectic.

310. Legal Philosophy and Jurisprudence (3) (PLS 310)
An introduction to the nature, concepts and sources of law and the various schools of jurisprudence. Topics to be studied include nature of equity, precedent, custom and law, rule-governed nature of law, justice, and the relation of law and morality.

DESCRIPTION CHANGES:

315. Ethics (3)
An examination of different ethical theories, with attention to such problems as the object of morality, moral weaknesses, ethical consistency, reactive attitudes and moral judgments, and the nature of moral reasoning.

317. Metaphysics (3)
A study of selected problems in metaphysics with readings from contemporary and classical sources. In the past such topics have been necessary truth, existence and being, dreams and Freud's theory, and the problem of rationality in talk of God and social explanation.

PHYSICAL EDUCATION

COURSE ADDITIONS:

237. Athletic Officiating II (2)
Rules, officiating techniques, and problems arising in officiating, with emphasis on volleyball, women's basketball, tennis, and badminton. One lecture and two laboratory hours each week. Fall.

368. Introduction to Therapeutic Recreation and Special Populations (3)
Prerequisite: Physical Education 265 and 266. The recrea-

DESCRIPTION OF COURSES - Continued

tion and park program for individuals and groups who are ill, handicapped, aged, or in other special groups conducted by tax-supported, voluntary, or private agencies found in the community, hospitals, penal institutions, or other special residences. Three hours per week. Fall.

467. Outdoor Recreation (3)
Prerequisite: Physical Education 265. The scope, organization, and program activities using resources in large parks, forests, and primitive areas. Consideration will be given to private, local, state, and federal agencies concerned with outdoor recreation in these areas. Three hours per week. Fall.

PHYSICS

CREDIT HOURS CHANGE:

370. Three Credit hours.

POLITICAL SCIENCE

COURSE ADDITION:

310. (P&R 310) Jurisprudence and Legal Philosophy (3)
Prerequisite: Junior standing and/or the consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. A comparative examination of legal theories including natural law, idealism, historical jurisprudence, utilitarianism, analytical jurisprudence, sociological jurisprudence and legal realism. Three hours each week. Spring, 1976.

PORTUGUESE
(See Modern Languages)

PSYCHOLOGY

COURSE ADDITIONS:

145. Psychology Applied To Human Life (3)
A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment.

370. Environmental Psychology (3)
Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment.

DESCRIPTION OF COURSES - Continued

450. Introduction to Counseling (3)
Prerequisite: Psychology 446 and 447. The major historical and contemporary theories of counseling including Freudian, client-centered, behavioristic and existential will be reviewed. Examination of each theory will be accompanied by demonstration and role-play situations in which the elements of each theory are explored.

451. Supervised Counseling Practice (3)
Prerequisite: Psychology 450 and consent of instructor. This course will provide for supervision of student practice in application of counseling skills and techniques in a variety of in-service situations. The student will participate in supervised counseling experiences in local social service agencies. The emphasis will be upon practice of skills combined with regular consultation with the supervisor.

SOCIAL SCIENCE
(No Additional Courses)

SOCIOLOGY AND ANTHROPOLOGY

SOCIOLOGY

COURSE ADDITIONS:

205. Human Societies (3)
Prerequisite: Sociology 105. The evolution of man and societies. Societal evolution as seen as an extension of and/or parallel to biological evolution. A movement from simple to complex as analyzed from a focus upon sustenance activity as the primary organizing principle of societies. Three hours each week.

302. Social Work Methods II (3)
Prerequisites: Sociology 235, Sociology 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problem-solving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected Human Service Agency is required. Three hours each week.

303. Social Welfare and Rehabilitation: Services, Policies, Issues and Programs (3)
Prerequisite: Sociology 235. A problematic approach to situations that affect policies, issues, programs and services in social work and rehabilitation services. An

DESCRIPTION OF COURSES - Continued

attempt to aid the student in developing an analytical and critical understanding as he explores the motivation and methods by which social work and rehabilitation services policies and programs are being developed by our society and other countries. Three hours each week.

316. Human Ecology (3)
Prerequisites: Sociology 105 and three additional hours in sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

336. Suicidology and Crisis Intervention (3)
Prerequisite: Sociology 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventive techniques that are appropriate for individuals, groups and communities are explored. A common theoretical frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crises, as well as abnormal and accidental crises. Three hours each week.

356. Critical Issues In Criminal Justice (3)
Prerequisite: Sociology 255. This course will be a study of crime, lawlessness, civil unrest and violence as issues relating to the administration of criminal justice, focusing on the current role of the system, the problems arising from attempting to fill that role, and some role modification that will improve the general operation of the criminal justice system. Three hours each week.

466. Social Planning (3)
Prerequisites: Sociology 105 and six additional hours in sociology above the introductory level. Examination and analysis of the theories and processes of social planning including the critical revieW of directed social change, of social intervention and of organizational adaptation. Three hours each week.

DESCRIPTION OF COURSES - Continued

COURSE NUMBER CHANGE:

366. Social Change (3) (Formerly Soc 465)
Prerequisite: Sociology 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change, direction of change, mechanism of change, and planning of change. Three hours each week.

TITLE CHANGE:

396. Community Organization And Social Practice (3)

ANTHROPOLOGY

COURSE ADDITIONS:

205. Archaeology (3)
The concepts and aims of archaeology, its history as a scientific discipline and its present role in the social sciences. Attention to basic principles in field work and to recent advances. Three hours each week.

495. Topical Seminar (1-6)
Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

ENVIRONMENTAL STUDIES-Continued

495 Seminar in Environmental Studies (3)
Prerequisite: Senior standing. Synthetic approach to the study of Environmental Science. Development of the "holistic" view of the environment, its interrelationship with science, technology and society in a seminar format.

499 Honors Work in Environmental Studies (2-3)
Prerequisite: Senior standing. Independent study for honors students.

ADMINISTRATIVE OFFICERS AND STAFF

THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

James Edward Sterling, B. A., Assistant Director of Admissions

Lenox Cooper, Jr., M. S. in L. S., Director of Library Services

Timothy A. Jordan, M. A., Director of Accounting

ADDITIONAL FACULTY

W. F. Ainsley, Instructor in Earth Sciences
B. A., M. S., University of North Carolina at Chapel Hill; Ph. D. candidate

Delilah B. Blanks, Instructor in Sociology
B. A., Shaw University; B. A., East Carolina University; M. S. W., University of North Carolina at Chapel Hill

James Glenn Collier, Jr., Associate Professor of English
A. B., M. A., Ph. D., University of North Carolina at Chapel Hill

Janet A. Donahue, Instructor in Physical Education
B. S., Miami University; M. S., University of North Carolina at Greensboro

Robert E. E. Duckett, Instructor in Philosophy
B. A., Furman University; graduate study, University of Edinburgh and London University; Ph. D. candidate, The Johns Hopkins University

Thomas Edward Fields, Lecturer in Sociology
B. S., graduate study, North Carolina State University

Julian Tracey James, Instructor in Physical Education
B. S., North Carolina State University; M. S., Indiana University

Kathleen Kowal, Assistant Professor of Psychology
B. S., University of Maryland; M. A., Columbia University; Ph. D.,Columbia University

Carla Lewis, Instructor in Nursing,
B. S. in Nursing, East Carolina University

James F. Merritt, Assistant Professor of Biology
B. S., M. A., East Carolina University; Ph. D., North Carolina State University

ADDITIONAL FACULTY - Continued

David K. Miller, Chairman, Department of Physical Education
B. S., Wake Forest University; M. Ed., University of North Carolina at Chapel Hill; Ph. D., Florida State University

Annette Rogers Pittman, Instructor in Biology
B. A., M. A., University of North Carolina at Greensboro

Nancy R. Ping, Instructor in Music
B. M., Indiana University; M. A., University of Northern Colorado

Richard Spencer Steen, Instructor in Music
B. A., St. Olaf College; M. M. A., Yale University

George Douglas Thornton, Jr., Instructor in Music
B. M., M. M., Eastman School of Music of University of Rochester

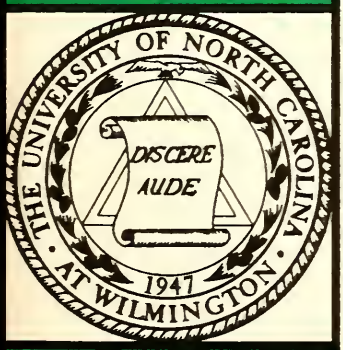
Nancy White, Instructor in Nursing
B. S. in Nursing, Ohio State University

Davis A. Young, Associate Professor of Earth Science
B. A., Princeton University; M. S., Pennsylvania State University; Ph. D., Brown University

Dr. Wagoner

UNC

WILMINGTON



1975 CATALOGUE

BULLETIN 27
CATALOGUE ISSUE 1975
Announcements 1975-76

The University of North Carolina at Wilmington 1975

WILMINGTON, NORTH CAROLINA 28401

1975

JANUARY

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JANUARY

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FEBRUARY

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MARCH

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MAY

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JUNE

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JULY

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AUGUST

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SEPTEMBER

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OCTOBER

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CALENDAR OF EVENTS
1975-76

FALL SEMESTER 1975

August 21-22, Thursday-Friday	Faculty Orientation
August 24, Sunday	Dormitory opens
August 25, Monday	Orientation
August 25, Monday	Faculty meeting 4:00 p.m.
August 26, Tuesday	Registration—late registration fee of $7.50 charged all registering after this date
August 27, Wednesday	Classes begin
September 1, Monday	Labor Day holiday
September 3, Wednesday	Last day for registration
September 3, Wednesday	Last day to add a class or drop a class without a grade
November 7, Friday	Graduation application deadline for Spring 1975
November 20, Thursday	Faculty meeting 4:00 p.m.
November 25, Tuesday	Thanksgiving vacation begins 10:30 p.m.
December 1, Monday	Thanksgiving vacation ends 8:30 a.m.
December 3, Wednesday	Last day to withdraw with WP or WF
December 5, Friday	Last day of classes
December 8-9, Monday-Tuesday	Final examinations
December 10, Wednesday	Reading day
December 11-12, Thursday-Friday	Final examinations
December 15-17, Monday-Wednesday	Final examinations
December 17, Wednesday	Fall Semester ends

SPRING SEMESTER 1976*

January 6, Tuesday	Dormitory opens
January 7, Wednesday	Registration—late registration fee of $7.50 charged all registering after this date
January 8, Thursday	Classes begin
January 15, Thursday	Last day for registration
January 15, Thursday	Last day to add a class or drop a class without a grade
January 29, Thursday	Faculty meeting 4:00 p.m.
February 27, Friday	Spring holidays begin 10:30 p.m.
March 8, Monday	Spring holidays end 8:30 a.m.
April 8, Thursday	Graduation application deadline for Summer 1976
April 15, Thursday	Easter vacation begins 10:30 p.m.
April 20, Tuesday	Easter vacation ends 8:30 a.m.
April 22, Thursday	Faculty meeting 4:00 p.m.
April 23, Friday	Last day to withdraw with WP or WF
April 29, Thursday	Last day of classes
April 30, Friday	Final examinations
May 3-4, Monday-Tuesday	Final examinations
May 5, Wednesday	Reading day
May 6-7, Thursday-Friday	Final examinations
May 10-11, Monday-Tuesday	Final examinations
May 11, Tuesday	Spring Semester ends
May 16, Sunday	Commencement

* Subject to change depending upon energy conservation measures in effect.

SUMMER SESSION 1976

First Term

May 30, Sunday	Dormitory opens
May 31, Monday	Registration
June 1, Tuesday	Classes begin
June 1, Tuesday	Last day for registration
June 3, Thursday	Last day to add a class or drop a class without a grade
June 25, Friday	Last day to withdraw with WP or WF
July 1, Thursday	Graduation application deadline for Fall Semester 1976
July 2, Friday	Final examinations
July 2, Friday	First Term ends

Second Term

July 11, Sunday	Dormitory opens
July 12, Monday	Registration
July 13, Tuesday	Classes begin
July 13, Tuesday	Last day for registration
July 15, Thursday	Last day to add a class or drop a class without a grade
August 6, Friday	Last day to withdraw with WP or WF
August 13, Friday	Final examinations
August 13, Friday	Second Term ends

FALL SEMESTER 1976

August 29, Sunday	Semester begins
December 21, Tuesday	Semester ends

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ADMINISTRATIVE OFFICERS AND STAFF OF THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

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William H. Wagoner, Ph.D.

ACADEMIC AFFAIRS

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- Daniel B. Plyler, Ph.D., *Assistant Vice Chancellor for Academic Affairs*
- James K. McGowan, Ph.D., *Assistant Vice Chancellor for Academic Affairs*
- Dorothy P. Marshall, B.S., *Director of Admissions and Records*
- L. Murrie Lee, B.A., *Assistant Director of Admissions*
- James E. Sterling, B.A., *Assistant Director of Admissions*
- Kathy Zegarac, B.A., *Admissions Counselor*
- William H. Browder, M.P.A., *Director of Continuing Education*
- W. Frank Bowen, B.A., *Assistant Director of Continuing Education*
- John L. Stokes, Ph.D., *Director of Special Programs*
- Ralph W. Brauer, Ph.D., *Director of the Institute of Marine Biomedical Research*

STUDENT AFFAIRS

William M. Malloy, Ph.D., *Vice Chancellor for Student Affairs*
- Helena R. Cheek, M.A., *Dean of Students*
- Ralph H. Parker, M.Ed., *Dean of Students*
- David L. Robertson, M.Ed., *Assistant Dean of Students for Residence Life*
- Darwin R. Newton, Ed.D., *Director of Counseling and Testing*
- James B. Slager, Ph.D., *Psychological Counselor*
- Steve E. Medlin, M.B.A., *Director of Student Financial Aid*
- Linda Moore, B.A., *Director of Student Activities*

Daniel Gottovi, M.D., *University Physician*
Phoebe Hood, F.N.P., *University Nurse*

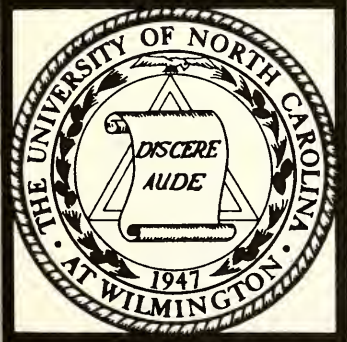
BUSINESS AFFAIRS

James A. Price, Jr., B.C.S., *Vice Chancellor for Business Affairs*
Robert O. Walton, Jr., B.A., *Comptroller*
Timothy Jordan, M.B.A., *Director of Accounting*
Grace W. Rhodes, *Bursar*
Charles L. Sanders, III, *Purchasing Officer*
Catherine D. Kiger, *Personnel Officer*
Davis B. Lumpkin, P.E., *Plant Engineer*
Dallas Cato, *Maintenance Supervisor*
Brantley J. Dillon, *Chief of Security Force*
James K. Clark, B.S., *Director of Auxiliary Services and Grants and Contracts*
Alfred Barry, B.S., *Safety Officer*

SUPPORTING SERVICES

William J. Brooks, M.S., *Director of Athletics*
Lenox G. Cooper, Jr., M.S. in L.S., *Director of Library Services*
Gwendolyn C. Croom, B.A., *Director of Information Services*
Robert E. Fry, M.S.P.H., *Director of Institutional Research*
Tyrone Rowell, M.A., *Director of Development*
Donald B. Trivette, B.E.D., *Director of Academic Computing Services*

THE UNIVERSITY



OFFICERS OF GENERAL ADMINISTRATION

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President*
RAYMOND HOWARD DAWSON, B.A., M.A., Ph.D., *Vice President—Academic Affairs*
_____, *Vice President—Student Services and Special Programs*
L. FELIX JOYNER, A.B., *Vice President—Finance*
JOHN L. SANDERS, A.B., J.D., *Vice President—Planning*
GEORGE ELDRIDGE BAIR, B.A., M.A., Ph.D., *Director of Educational Television*
JAMES L. JENKINS, JR., A.B., *Assistant to the President*
EDGAR WALTON JONES, B.S., M.S., Ph.D., *Associate Vice President—Research and Public Service*
JOHN P. KENNEDY, JR., S.B., B.A., M.A., J.D., *Secretary of the University*
ARNOLD KIMSEY KING, A.B., A.M., Ph.D., *Assistant to the President*
ROSCOE D. McMILLAN, JR., B.S., *Assistant to the President for Governmental Affairs*
RICHARD H. ROBINSON, JR., A.B., LL.B., *Assistant to the President*
J. LEM STOKES, II, A.B., M.Div., Ph.D., *Associate Vice President—Academic Affairs*
ROBERT W. WILLIAMS, A.B., M.A., Ph.D., *Associate Vice President—Academic Affairs*

Sixteen Constituent Institutions

The University of North Carolina was chartered in 1789 and opened its doors to students at its Chapel Hill campus in 1795. Throughout most of its history, it has been governed by a Board of Trustees chosen by the Legislature and presided over by the Governor. During the period 1917-1972, the Board consisted of one hundred elected members and a varying number of *ex-officio* members.

By act of the General Assembly of 1931, without change of name, it was merged with The North Carolina College for Women at Greensboro and The North Carolina State College of Agriculture and Engineering at Raleigh to form a multicampus institution designated The University of North Carolina.

In 1963 the General Assembly changed the name of the campus at Chapel Hill to The University of North Carolina at Chapel Hill

and that at Greensboro to The University of North Carolina at Greensboro and, in 1965, the name of the campus at Raleigh was changed to North Carolina State University at Raleigh.

Charlotte College was added as The University of North Carolina at Charlotte in 1965, and, in 1969, Asheville-Biltmore College and Wilmington College became The University of North Carolina at Asheville and The University of North Carolina at Wilmington respectively.

A revision of the North Carolina State Constitution adopted in November 1970 included the following: "The General Assembly shall maintain a public system of higher education, comprising The University of North Carolina and such other institutions of higher education as the General Assembly may deem wise. The General Assembly shall provide for the selection of trustees of The University of North Carolina. . . ." In slightly different language, this provision had been in the Constitution since 1868.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state-supported senior institutions into the University as follows: Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, Pembroke State University, Western Carolina University, and Winston-Salem State University. This merger, which resulted in a statewide multi-campus university of sixteen constituent institutions, became effective on July 1, 1972.

The constitutionally authorized Board of Trustees was designated the Board of Governors, and the number was reduced to thirty-two members elected by the General Assembly, with authority to choose their own chairman and other officers. The Board is "responsible for the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." Each constituent institution, however, has its own board of trustees of thirteen members, eight of whom are appointed by the Board of Governors, four by the Governor, and one of whom, the elected president of the student body, serves *ex officio*. The principal powers of each institutional board are exercised under a delegation from the Board of Governors.

Each institution has its own faculty and student body, and each is headed by a chancellor as its chief administrative officer. Unified general policy and appropriate allocation of function are effected by the Board of Governors and by the President with the assistance of other administrative officers of the University. The

General Administration office is located in Chapel Hill.

The chancellors of the constituent institutions are responsible to the President as the chief administrative and executive officer of The University of North Carolina.

BOARD OF GOVERNORS
THE UNIVERSITY OF NORTH CAROLINA

William A. Dees, Jr., Chairman
W. Earl Britt, Vice Chairman

Louis T. Randolph, Secretary

Class of 1975

Clark S. Brown, Winston-Salem
Lenox G. Cooper, Wilmington
Mrs. Howard Holderness, Greensboro
John R. Jordan, Jr., Raleigh
J. Aaron Prevost, Hazelwood
Louis T. Randolph, Washington
William B. Rankin, Lincolnton
W. W. Taylor, Jr., Raleigh

Class of 1977

Victor S. Bryant, Durham
George Watts Hill, Durham
Wallace N. Hyde, Asheville
Robert B. Jordan, III, Mount Gilead
Mrs. Albert H. Lathrop, Asheville
Reginald F. McCoy, Laurinburg
Maceo A. Sloan, Durham
Thomas J. White, Jr., Kinston

Class of 1979

W. Earl Britt, Lumberton
Julius L. Chambers, Charlotte
Dr. Hugh S. Daniel, Jr., Waynesville
William A. Dees, Jr., Goldsboro
Jacob H. Froelich, Jr., High Point
William A. Johnson, Lillington
E. B. Turner, Lumberton
Mrs. George D. Wilson, Fayetteville

Class of 1981

Hugh Cannon, Raleigh
Philip G. Carson, Asheville
T. Worth Coltrane, Asheboro
Luther H. Hodges, Jr., Charlotte
Mrs. Hugh Morton, Linville
David J. Whichard, II, Greenville
John W. Winters, Raleigh
George M. Wood, Camden

THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

The University of North Carolina at Wilmington was founded in 1947 as Wilmington College, a locally supported and governed institution, to provide the youth and adults of New Hanover County and southeastern North Carolina an opportunity for two years of university parallel study, semiprofessional training and vocational-technical education at moderate expense. From these beginnings and goals and through a series of transformations with ever widening programs and aspirations, the institution has become a part of The University of North Carolina, whose purpose, resources and direction it shares.

The university at Wilmington is a community of scholars dedicated to teaching, learning and creating, and to extending knowledge through research. Its objective is to stimulate a creative spirit, to fire imagination, to promote curiosity and to teach students to make valid judgments concerning activities and values as well as to think with clarity and to communicate with fluency and accuracy in the realms of empirical facts and abstract ideas.

The programs offered by the university are designed to serve a broad spectrum of abilities and interests in the liberal arts and sciences. To implement these programs, most of which lead to the baccalaureate degree, the university provides undergraduate instruction and research opportunities in fine arts, humanities, natural sciences, social sciences, teacher education and other professional disciplines. Moreover, the geographical location of the university at Wilmington, the only campus of The University of North Carolina adjacent to the ocean, in a region rich in history and yet modern in industrial development, provides a challenge to be innovative. As the university progresses, its special environment as well as the needs of its constituency will play a major part in the development in scope and depth of established programs and in the initiation of new ones.

HISTORY AND BACKGROUND

Education on the college level first came to Wilmington in 1946 when a college center was established under the direction of the North Carolina College Conference and under the administration of the Directorate of Extension of The University of North Carolina at Chapel Hill. The center offered courses on the freshman level to some 250 students during the academic year 1946-47. In 1947 a tax levy was approved by the citizens of New Hanover County, and Wilmington College was brought into existence as a county institution under the control of the New Hanover County Board of

Education. In 1948 Wilmington College was officially accredited by the North Carolina College Conference and became a member of the American Association of Junior Colleges. In 1952 the institution was accredited as a junior college by the Southern Association of Colleges and Schools.

In 1958 New Hanover County voted to place the college under the Community College Act of the State of North Carolina. By virtue of this vote, the college became a part of the state system of higher education, and control passed from the New Hanover County Board of Education to a board of twelve trustees, eight of whom were appointed locally and four of whom were appointed by the governor of the state. At the same time, the requirements for admission and graduation and the general academic standards of the college came under the supervision of the North Carolina Board of Higher Education, and the college began to receive an appropriation from the state for operating expenses in addition to the local tax.

On July 1, 1963, by an act of the General Assembly of North Carolina, Wilmington College became a senior college with a four-year curriculum, authorized to offer the bachelor's degree.

By vote of the Board of Trustees of The University of North Carolina in late 1968, with subsequent approval by the North Carolina Board of Higher Education, and by an act of the General Assembly of North Carolina in 1969, Wilmington College became, on July 1, 1969, The University of North Carolina at Wilmington. It, and the institution in Asheville previously designated as Asheville-Biltmore College, became the fifth and sixth campuses of The University of North Carolina.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state-supported senior institutions into the university. Thus The University of North Carolina now comprises sixteen institutions.

ACADEMIC STANDING

The University of North Carolina at Wilmington is accredited by the Southern Association of Colleges and Schools and the North Carolina Association of Colleges and Universities. It also holds membership in the Council for Advancement and Support of Education, the American Council on Education and the American Placement Council, and is on the list of schools approved by the American Chemical Society.

THE CAMPUS

The University of North Carolina at Wilmington is located in the southeastern part of the state on a 600-acre tract on State Highway 132 midway between the Cape Fear River and the Atlantic Ocean. The city of Wilmington is situated on the east bank of the Cape Fear River and is about 15 miles from Carolina Beach and 10 miles from Wrightsville Beach. From a village of 1,689 people in 1800, Wilmington has developed into a city of more than 60,000 population. Several main highways lead into the city, and it is also readily accessible by plane.

Ocean breezes and the nearness of the Gulf Stream give Wilmington a delightful year-round climate, and the area's proximity to the ocean provides unlimited recreational opportunities.

The spacious, well-landscaped campus was first occupied by the university in 1961, with three buildings in use. Today there are 17 buildings, plus athletic fields and ample parking areas. A professionally engineered master plan will guide future expansion to insure harmony between the buildings and their surroundings.

BUILDINGS

The buildings on the campus are of modified Georgian architecture. All academic buildings, as well as the cafeteria and residence hall, are completely air-conditioned.

The Edwin A. Alderman Administration Building, named in honor of a native Wilmingtonian who served as president of The University of North Carolina, The University of Virginia and Tulane University, houses administrative offices, the department of history, classrooms and a number of faculty offices.

Hoggard Hall, the academic building named in honor of Dr. John T. Hoggard, second president of Wilmington College, contains classrooms, the departments of nursing, political science, and sociology and anthropology laboratories, the computing center and faculty and staff offices.

The Hinton James Student Services Building contains student lounges, an assembly room, offices for student organizations and the university bookstore. It was named for a New Hanover County resident who was the first student to enroll at The University of North Carolina.

Hanover Hall, the physical education building, provides modern facilities for the athletic activities of both men and women students, including a large playing floor with rollaway bleachers, a second athletic activity floor, offices, locker rooms and showers, and special gymnastic equipment. It has a seating capacity of

2,000 for basketball and similar spectator events.

Kenan Hall, named in honor of the late Mrs. Sarah Graham Kenan of Wilmington, is occupied by the departments of art, English, modern languages, music and philosophy and religion. It contains classrooms, faculty offices, language laboratories, art and music studios, the music library, an electronic music studio, dramatic workshops and the S.R.O. Theatre.

The Chemistry-Physics Building houses the departments of chemistry, mathematical sciences and physics. It is equipped with classrooms, teaching auditoriums, faculty and staff offices and modern, well-equipped laboratories for the physical sciences.

The Arnold Kimsey King Education and Psychology Building contains an auditorium with a seating capacity of 240, classrooms, faculty offices, a curriculum laboratory and a modern demonstration classroom and laboratory for occupancy by an elementary grade.

The University Cafeteria, opened in 1971, provides space for food services for both students and faculty and contains the most modern food service equipment.

The Sarah Graham Kenan Memorial Auditorium, a gift from the Sarah Graham Kenan Foundation, has a seating capacity of 1,000 persons. The auditorium is also equipped for use as a theatre and contains the offices and seminar rooms for the Department of Drama and Speech.

The University Residence Hall, opened in 1971, provides housing for 400 students.

The Isaac Bear Business and Economics Building, completed in 1972, contains classrooms, a computer laboratory, and faculty offices for the Department of Business and Economics.

The Marine Science Building was completed in 1974. It houses the Departments of Biology and Earth Sciences and contains classrooms and laboratories.

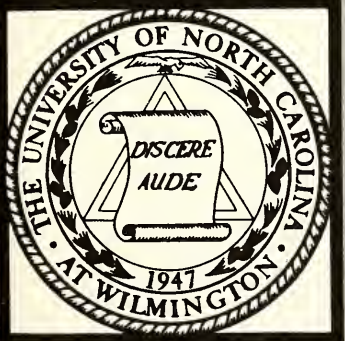
The William Madison Randall Library, completed in January, 1969, is named for the President Emeritus of Wilmington College. It has a seating capacity of more than 600 and space for 200,000 volumes. The library collection contains over 110,000 volumes shelved on open stacks according to the Library of Congress classification system. Rare and unique items are housed in the Helen Hagan Rare Book Room. Some 1,300 periodicals are regularly received, and extensive backfiles are maintained in bound volumes or microform. Coin operated machines for copying micorforms and printed material are available.

The Library is a partial depository for United States government publications, and the collection of documents now consists of approximately 55,000 items.

An audio-center with 18 listening positions and a wide variety of recordings is available for class assignments and personal enjoyment. Two seminar rooms and a conference room are available for meetings of small groups, and a 70-seat auditorium is equipped for all types of audio-visual use. Lockers are provided for students doing honors work.

A librarian trained in reference service is always available to provide information and reader guidance services to students and faculty.

ADMISSIONS


THE UNIVERSITY OF NORTH CAROLINA
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ADMISSIONS

The University of North Carolina at Wilmington seeks to admit students with the intellectual ability to perform in the collegiate community. However, the student must have the motivation and the determination to avail himself of the learning experiences that will be beneficial to him if he is to attain both academic and personal enrichment. As a state-supported institution, the university is aware of its obligation to provide an educational opportunity to all qualified applicants who will benefit from the program of study offered on the Wilmington campus.

Applicants may enter the university at the beginning of the fall and spring semesters and at the beginning of each summer term. The academic qualifications of each applicant are carefully reviewed by the admissions personnel in a conscientious effort to admit those students who have the potential for further achievement.

ADMISSIONS-FRESHMEN

The requirements for admission to The University of North Carolina at Wilmington are:

(1) Graduation from an accredited high school
(2) A satisfactory score on the Scholastic Aptitude Test (SAT)
(3) An overall "C" average on all work attempted in grades 9-12
(4) The following specific high school units:
    4 units in English
    *2 units in one foreign language
    2 units in Mathematics (Algebra I and Geometry or Algebra II)
    2 units in Social Studies
    1 unit in Science

*Students who meet all minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and 102 before they are graduated with the baccalaureate degree.

Students failing to meet the above minimum requirements, but who can show other evidence of ability to perform satisfactorily at the college level, will be considered on an individual basis for conditional admission.

APPLICATION PROCEDURE FOR FRESHMEN

Students wishing to enroll are required to comply with the following procedures:

1. Submit a completed application form. A $10.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Have the secondary school officials submit an official transcript of secondary school work and your rank in class if available. The transcript must be sent directly to the Office of Admissions, The University of North Carolina at Wilmington, P. O. Box 3725, Wilmington North Carolina 28401.

3. Take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board. Applicants must request that their scores on this test be sent to the Office of Admissions. Because of deadlines for filing application to take the College Board tests, the student must make his arrangements well in advance of the testing date so that his application may be received in Princeton or Berkeley by the closing date. Applicants are accepted on either junior or senior year SAT scores. For information about the SAT, contact your secondary school guidance counselor or write or call College Board ATP, P. O. Box 592, Princeton, New Jersey 08540; (609) 921-9023. Students who live in the Western, Southwestern or Pacific Coast states should write or call College Board ATP, Box 1025, Berkeley, California 94701; (415) 849-0950.

It is important that high school credits and test scores reach the university early so that all correspondence relating to the application may be completed before the opening of the semester in which the student expects to register.

ADMISSIONS-TRANSFER

A student wishing to transfer to The University of North Carolina at Wilmington from another institution must meet the following requirements for admission: (1) He must be eligible to return to the institution last attended and (2) He must have attained at least a "C" average (4.0 system) based on all courses attempted at all institutions attended. Transfer students with less than 24 semester hours of transferable credit must also meet the freshman entrance requirements.

A student seeking admission by transfer of credits is required to have all transcripts of previous college or university records forwarded to the Director of Admissions by the Registrar at each institution he has attended. Even though no transfer of credit may be involved, all previous college or university experience must be certified by transcripts or records of attendance.

Students wishing to transfer are required to comply with the following procedures:

1. Submit a completed application form. A $10.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Submit a completed University Questionnaire for transfer students. This Questionnaire is included in the transfer admissions packet.

3. Have an official transcript from each college or university attended, including summer school, submitted. It is the applicant's responsibility to request that each institution attended send an official transcript directly to the Office of Admissions. If transfer applicants have completed fewer than 24 semester hours of transferable credit, they must also submit an official secondary school transcript and an official copy of the scores of the Scholastic Aptitude Test of the College Entrance Examination Board. These scores may be included on the official secondary school transcript.

ADMISSIONS-ASSOCIATE DEGREE PROGRAM IN NURSING

Admission to the Associate Degree Program in Nursing requires, in addition to acceptance to the University, an interview with and approval by the Department of Nursing.

NOTIFICATION OF ACCEPTANCE

Applicants are notified of action taken on their application as soon as possible. However, final action cannot be taken until all required information is in the Office of Admissions.

ADMISSIONS-FORMER STUDENTS

Former UNC-Wilmington students desiring to return to school are required to complete a Reenrollment Form. A former student who has attended a college or university since his last enrollment is required to submit an official transcript from each institution attended. It is the responsibility of the applicant to request transcripts be sent directly to the Office of Admissions.

ADMISSIONS-SUMMER VISITORS

During the summer session, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. Applicants from other colleges or universities should seek prior approval from their dean to take courses at The University of North Carolina at Wilmington. The university assumes no responsiblity in determining a student's course selection when such credits are to be transferred elsewhere. Enrollment by permission from another institution in no way obligates the university to continue one's enrollment at The Uni-

versity of North Carolina at Wilmington after the expiration of the permission period. Summer visitor applications and schedules are available in April of each year.

ADMISSIONS—SPECIAL HIGH SCHOOL STUDENTS

Selected high school seniors who wish to pursue an academic program on the collegiate level while attending high school may enroll at The University of North Carolina at Wilmington if they meet the qualifications for participation in this program. Because of distance this program is available primarily to students in the Wilmington area. Special applications for admission are available in the office of the high school counselor. Students may enter this program at the beginning of the fall, spring or summer term.

ADMISSIONS-NON-HIGH SCHOOL GRADUATES

A student 21 years of age or older and of high purpose who has not acquired a high school diploma may be approved to enroll in the university by achieving a satisfactory score on the SAT or on the recommendation of the Admissions and Standards Committee.

ADMISSIONS-FOREIGN STUDENTS

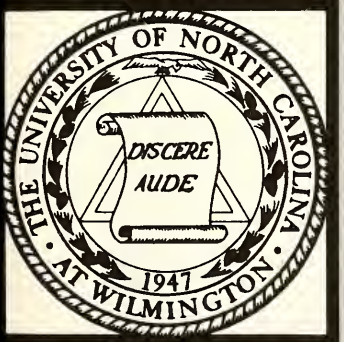
The university welcomes admission inquiries from foreign students. The prospective student must present evidence that he is academically qualified for admission and present satisfactory test results on the Test of English as a Foreign Language (TOEFL) to indicate his English proficiency.

NONDISCRIMINATORY POLICY

Applicants are admitted entirely on the basis of their academic qualifications without reference to national origin, creed, color, or sex.

Any student who supplies false or misleading information or who conceals pertinent facts in order to enroll in The University of North Carolina at Wilmington will be subject to immediate dismissal from the university.

EXPENSES


THE UNIVERSITY OF NORTH CAROLINA
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EXPENSES

TUITION AND FEES

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

The Board of Trustees of the university reserves the right to change the charges for tuition, fees and the room and board rate at any time without prior notice.

Charges Per Semester:

	In-State Students	Out-of-State Students*
Tuition	$110.50	$900.00
Fees	70.50	70.50
Total	$181.00	$970.50
Other Fees:		
Application Fee (to accompany application, nonrefundable)		$10.00
Late Registration Fee (payable after scheduled dates)		7.50
Transcript Fee (after the first)		1.00
Private Music Fee: one half-hour per week		37.50
two half-hours per week		67.50
Graduation Fee		10.00

Students scheduling fewer than ten semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students
1	$ 24.00	$103.00
2	36.00	194.00
3	48.00	285.00
4	60.00	376.00
5	128.50	523.50
6	140.50	614.50
7	152.50	705.50
8	166.50	798.50
9	178.50	889.50

The privileges of students taking fewer than five hours per semester will be restricted to class attendance and use of the library.

*See information on residency at the end of this section.

ROOM AND BOARD

Two plans are available for room and board, one providing meals five days per week and the other providing meals seven days per week. The rates per semester are:

Room and Board: 5 days—15 meals $550

Room and Board: 7 days—21 meals $575

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

Those interested in obtaining information should contact:

Office of Student Affairs
The University of North Carolina at Wilmington
Post Office Box 3725
Wilmington, North Carolina 28401

A $50 deposit must accompany the housing application.

SUMMER SESSION

Summer session tuition and fees and room and board rates will be announced in the summer session bulletin.

REFUNDS

A student who officially withdraws from the university on or before the last day of the registration period will receive a refund of the amount paid less a registration fee of $7.50.

After the registration period the student will be charged 1/10 of the semester charges for each week in attendance plus a registration fee of $7.50. No refund will be made after the end of the ninth week.

Room and board agreements are effective for the full academic year. Agreements made subsequent to the beginning of the Fall Semester remain in effect until the close of the Spring Semester. Room and board deposit and charges will not be refunded except as provided for below:

a. Agreements may be cancelled *without* forfeiture of deposit before July 1. Written notice of cancellation must be furnished the Vice Chancellor for Student Affairs.

b. Agreements may be cancelled *with* forfeiture of deposit between July 1 and the date on which the dormitory opens for Fall Semester. Deposit and room rent for the Fall Semester will not be refunded after that date.

c. Agreements may be cancelled before the date on which the dormitory opens for Spring Semester. Deposit and room rent for the Spring Semester will not be refunded after that date.

d. Agreements entered into for the Spring Semester only may be cancelled without forteiture of deposit before December 1 and with forfeiture of deposit between December 1 and the date on which the dormitory opens for Spring Semester. Written notice of cancellation must be furnished the Vice Chancellor for Student Affairs.

e. A pro-rata refund of dining charges will be made to students who officially withdraw from the university.

No degree, diploma, transcript of credits, or grades will be furnished a student until all financial obligations to the university, other than student loans, have been paid. All previously incurred expenses and accounts at the university must be paid in full before a student may re-enter at the beginning of any semester.

RESIDENCE STATUS FOR TUITION PAYMENT

1. General: The tuition charge for legal residents of North Carolina is less than for nonresidents. To qualify for in-state tuition, a legal resident must have maintained his domicile in North Carolina for at least the twelve months next preceding the date of first enrollment or reenrollment in an institution of higher education in this state. Student status in an institution of higher education in this state shall not constitute eligibility for residence to qualify said student for in-state tuition.

2. Minors: A minor is any person who has not reached the age of eighteen years. The legal residence of a person under eighteen years of age at the time of his first enrollment in an institution of higher education in this state is that of his parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the legal residence of the father will control unless custody of the minor has been awarded by court to the mother or to a legal guardian other than a parent. No claim of residence in North Carolina based upon residence of a guardian in North Carolina will be considered if either parent is living unless the action of the court appointing the guardian antedates the student's first enrollment in a North Carolina institution of higher education by at least twelve months.

3. Adults: An adult is any person who has reached the age of eighteen years. Persons eighteen or more years of age at the time of first enrollment in an institution of higher education are responsible for establishing their own domicile. Persons reaching the

age of eighteen, whose parents are and have been domiciled in North Carolina for at least the preceding twelve months, retain North Carolina residence for tuition payment purposes until domicile in North Carolina is abandoned. If North Carolina residence is abandoned by an adult, maintenance of North Carolina domicile for twelve months as a non-student is required to regain in-state status for tuition payment purposes.

4. Married Students: The legal residence of a wife follows that of her husband, except that a woman currently enrolled as an in-state student in an institution of higher education may continue as a resident even though she marries a nonresident. If the husband is a nonresident and separation or divorce occurs, the woman may qualify for in-state tuition after establishing her domicile in North Carolina for at least twelve months as a non-student.

5. Military Personnel: No person shall lose his in-state resident status by serving in the Armed Forces outside of the State of North Carolina. A member of the Armed Forces may obtain in-state residence status for himself, his spouse, or his children after maintaining his domicile in North Carolina for at least the twelve months next preceding his or their enrollment or re-enrollment in an institution of higher education in this state.

6. Aliens: Aliens lawfully admitted to the United States for permanent residence may establish North Carolina residence in the same manner as any other nonresident.

7. Property and Taxes: Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate.

8. Change of Status: The residence status of any student is determined as of the time of his first enrollment in an institution of higher education in North Carolina except:

(a) In the case of a nonresident student at the time of first enrollment who has subsequently maintained domicile as a non-student for at least twelve consecutive months and

(b) In the case of a resident who abandons his legal residence in North Carolina.

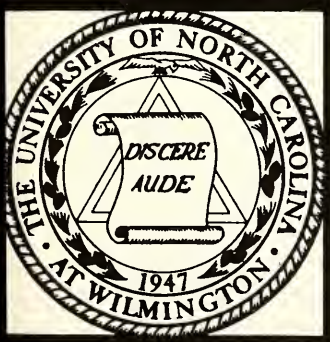
In either case, the appropriate tuition rate will become effective at the beginning of the first subsequent term enrolled.

9. Responsibility of Students: Any student or prospective student in doubt concerning his residence status must bear the responsibility for securing a ruling by stating his case in writing to the Admissions Office. The student who, due to subsequent events, becomes eligible for a change in classification, whether from out-of-state to in-state or the reverse, has the responsibility of immediately informing the Office of Admissions of this circumstance in writing. Failure to give complete and correct informa-

tion regarding residence constitutes grounds for disciplinary action.

10. Appeals of Rulings of Admissions Officers on Residence Status: Any student or prospective student may appeal the ruling of the admissions officer in writing to the chancellor of the institution. The chancellor may use any officer or committee which he deems appropriate in review of the appeal. Appeal of the chancellor's ruling may be made to the president of the university, such appeals to be filed with the chancellor and forwarded by him to the president.

FINANCIAL AID



FINANCIAL AID

The primary aim of the financial aid program administered by The University of North Carolina at Wilmington is to provide assistance to students who, without aid, would be unable to continue their education. The financial need of a student is determined by the resources available to him in relation to university expenses. Requests for financial aid should be submitted to the director of student financial aid before February 15 for the next academic year.

Entering freshmen may be considered for all types of assistance by obtaining Parent's Confidential Statement forms from their high schools, having their parents complete the forms, and submitting them to the College Scholarship Service in Princeton, New Jersey, preferably before February 1 of the year of expected fall enrollment.

SCHOLARSHIPS: Tuition scholarship awards are given to students who demonstrate financial need, character, leadership and scholarship. These awards may be made by the institution or by outside organizations.

ATHLETIC AWARDS: Athletic awards in varying amounts are available to qualified students who participate in intercollegiate basketball, baseball, golf, tennis and wrestling. For information write to the Director of Athletics, The University of North Carolina at Wilmington.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS: Educational Opportunity Grants provide financial aid to students of exceptional financial need who, for lack of financial means of their own or of their families, would be unable to enter or remain in this institution without such assistance. Students who qualify may be eligible for a grant of up to $1,000 per year. For more information, contact the director of student financial aid.

NATIONAL DEFENSE STUDENT LOANS: Students who can demonstrate financial need and who are taking at least half-time course loads may borrow up to $1,250 each academic year to a total of $5,000. The repayment and interest period begins nine months after a student ends his studies. The loan bears interest at three per cent per year. Prior to graduation or other discontinuation of studies, borrowers in the program are expected to have exit interviews with the business office to establish a repayment schedule.

PROSPECTIVE TEACHER LOANS: This scholarship loan fund is administered by the North Carolina State Department of Public Instruction. Application forms may be secured from the Financial

Aid Office. Application must be made by March 1 of the year of expected fall enrollment. Recipients are eligible to receive $600 per academic year when enrolled in a full-time teacher education program. Repayment may be made by teaching in North Carolina schools after graduation.

COLLEGE FOUNDATION, INC.: Under the Federal Guaranteed Loan Program, North Carolina students are eligible to apply for loans of up to $2,000 per year with an aggregate of $7,500 for six years of study. During the in-school period, interest is paid by the federal government for students from families with adjusted incomes of less than $15,000 per year. These loans are insured by the State Education Assistance Authority, and students pay an insurance premium of one-half of one per cent.

COLLEGE WORK-STUDY: Students from low-income families are eligible to apply for employment by the university in on-campus jobs under federally supported work-study programs. Students may work up to 14 weeks, 40 hours per week, and will be paid an hourly wage. The student is expected to save 80 per cent of his earnings for college expenses during the following year. Applications may be obtained from the high school or the Financial Aid Office. Students interested in the program should submit their applications to the Financial Aid Office of The University of North Carolina at Wilmington no later than March 15.

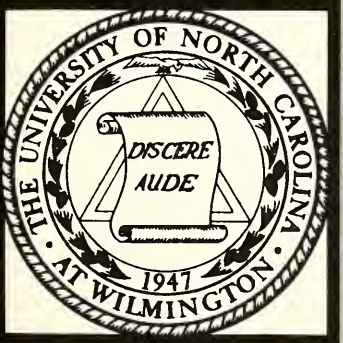
STUDENT EMPLOYMENT: Full-time students may apply for employment on campus under state-supported work assistance programs.

BASIC EDUCATIONAL OPPORTUNITY GRANTS: The BEOG Program is a Federal aid program designed to provide financial assistance to those who need it to attend college. The grants range from between $50 and $950. To be eligible a student must be enrolled for at least 12 hours, and must not have attended a post-high school institution before April 1, 1973. Applications are available at your high school and the Financial Aid Office at UNC-W.

OFFICE OF VETERANS AFFAIRS: The Office of Veterans Affairs (OVA) exists to provide educational assistance to veterans and/or their dependents enrolled at The University of North Carolina at Wilmington. The OVA is concerned with the recruitment of veterans into the university and insuring that they successfully complete their educational programs. The OVA provides peer and professional counseling, remedial services, tutorial services, and community outreach services. This office also acts to coordinate existing campus services to best serve the needs of the veteran students.

In addition to these services, there is a VA Educational Benefits Representative on campus three days a week. His primary duties consist of facilitating the receipt of G. I. bill checks and serving as a direct contact between the veteran-student and the VA Regional Office in Winston-Salem. The OVA is located in Room 109 in the Alderman Building.

STUDENT AFFAIRS



STUDENT AFFAIRS

COUNSELING

Counseling psychologists provide service to students seeking assistance in achieving maximum personal growth, effective educational, vocational and social relationships and healthy personal adjustment. These services include counseling, assessment and evaluation of achievement, personality, mental aptitude and vocational interests. There is no charge for these services. Counseling Center sessions and files are confidential.

Concerns and decisions which are commonly discussed by students who come to the Counseling Center include:

(1) Choice of a major. Although some students declare a major at the beginning of their college career, others may want to discuss their initial choice of a major or the possibilities for changing majors.

(2) Choice of career. Going hand-in-hand with choices concerning a major, yet often of more specific concern, are student concerns related to decision about vocational choice.

(3) Academic problems. Some students may benefit from a discussion of study habits and skills.

(4) Personal problems. Situations may arise in which a student needs greater understanding of self and/or others as this pertains to problems at home, misunderstandings with roommate, dating problems or other such interpersonal concerns.

PLACEMENT SERVICES

The university maintains placement services which coordinate and plan campus interviews with representatives seeking graduates for positions in business, industry, government, and other agencies. The placement of teachers is handled by the education department. Seniors are urged to register with the Placement Office if they wish assistance in seeking permanent employment.

Listings of summer work and part-time employment during the academic year are available through this service. No fee is charged for registering, and there is no commission from those who obtain a position through these services.

STUDENT HOUSING

The university has residence facilities for 200 men and 200 women in a modern, conveniently located dormitory. All rooms

are air-conditioned and furnished, and laundry facilities are available. Residents of the dormitory are required to take their meals in the university cafeteria under either a five-day or a seven-day plan.

FOOD SERVICE

The university operates a modern, air-conditioned cafeteria building. Hot meals are served on the second floor and a snack area is located on the first floor. Service is on a cash basis for non-boarding students.

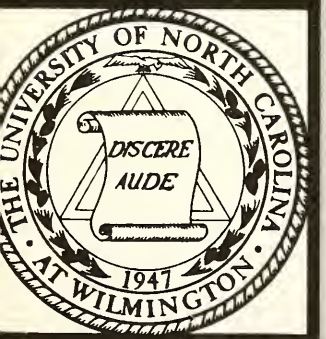
STUDENT HEALTH SERVICE

UNC-Wilmington provides a student Health Service Center which is located adjacent to the main lobby area of the residence hall. The center has the most modern medical equipment available for the treatment of minor illness or injury. The Health Service Center is open five days a week and a physician is on call at night and on weekends. THIS SERVICE IS PAID FOR BY STUDENT FEES AND IS INTENDED TO COVER ONLY MINOR ILLNESS OR INJURY.

STUDENT HEALTH INSURANCE

It is strongly recommended that students who are not covered for major medical expenses (serious injuries due to accidents or hospitalization) under their family health and accident insurance plan contact the Student Affairs Office for information relative to the student health insurance plan offered at a nominal cost through the University.

STUDENT LIFE AND ACTIVITIES



ACTIVITIES

Students at The University of North Carolina at Wilmington involve themselves in a wide range of extracurricular activities, ranging from cultural pursuits to athletic competition to publications.

ATHLETICS

The university holds membership in two athletic associations: The National Collegiate Athletic Association and The National Association of Intercollegiate Athletics.

Varsity intercollegiate teams are fielded in basketball, baseball, soccer, wrestling, tennis and golf. In addition, an intramural sports program is provided for the student body. The program is based broadly on competitive and recreational activities, and participation is voluntary.

Women's intercollegiate teams compete in basketball, volleyball and tennis.

PUBLICATIONS

Students are involved in the writing and editing of several university publications, while others are published by the university for the benefit of students and alumni.

The Seahawk, the student newspaper, is published weekly. Its editorial staff is composed entirely of students.

The Fledgling, the student-produced yearbook, contains the usual features of a college annual.

The Atlantis, a literary magazine, is published by the students.

The Student Handbook is published as a guide to life at the university. It acquaints the student with the institution's rules and regulations.

The University of North Carolina at Wilmington Bulletin is issued annually. Its purpose is to provide information about the university—its programs, its progress and its function in the educational system.

FINE ARTS-LECTURE SERIES

The student Fine Arts-Lecture Committee makes programs of interest and cultural significance available to the student body and the community.

UNIVERSITY INSTRUMENTAL ENSEMBLES

The University of North Carolina at Wilmington Wind Ensemble is organized each semester to provide instrumental music experience for those students who desire it. Membership is open to any student who has had instrumental experience, with the approval of the director; and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit. Participation in either a vocal or an instrumental organization is required of all music majors.

The University Wind Ensemble and its smaller ensembles regularly provide music for university functions, civic and church groups, and radio and television.

The University Wind Ensemble presents at least two concerts a year and participates in the large, joint stage productions of the music and drama departments.

Students are also invited to participate in the *UNC-W/Community Orchestra,* which rehearses on the campus.

Faculty and Student Recitals and Special Senior Recitals are presented by the music department free of charge and are open to the public as well as to all students.

The Music Department also maintains an Electronic Music Studio.

UNIVERSITY VOCAL ENSEMBLES

The University of North Carolina at Wilmington Concert Choir is organized each semester to provide vocal musical experience for those students who desire it. Membership is open to any student in the university, with the approval of the director, and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit. All music majors are required to participate in either a vocal or an instrumental group.

The University Concert Choir and small ensemble, *The Chamber Singers,* regularly provide music for university functions, appear on radio and television, and act as ambassadors from the university at a wide spectrum of community functions.

The UNC-W Concert Choir's yearly activities have included at least two on-campus concerts and an extensive tour during the spring holidays. On occasion the choir has participated in large, joint stage productions of opera and musical comedies with the drama department.

THE UNIVERSITY THEATRE

The University Theatre is a student oriented theatre dedicated to the continuing development of all theatre practitioners. It strives to produce a total theatrical experience to support the educational, creative, and recreational potentials of a campus-based theatre.

Two major productions are presented each semester, with student productions presented on demand. Participation is not limited to dramatic art students, but is open to all university personnel and community residents.

S.R.O. STRAW-HAT THEATRE

The S.R.O. Straw-Hat Theatre, an institution-sponsored organization, operates as the artistic and cultural outlet during the summer months.

Initiated during the summer of 1968, a summer stock company is brought to the campus to present seven productions in a seven-week period, approximately from June 24 through August 10. Try-outs are held about June 4 for two nights and are open to all students of UNC-W and residents within the area.

Since its inception, it has presented Broadway, classic, original and musical plays. This program exposes students of UNC-W and other branches of the consolidated university to the unique educational experience of working under summer stock and professional conditions.

DEBATE TEAM

The University Debate Team participates in a number of tournaments each year, giving students experience in research, argumentation and public speaking. The team is a member of the National Forensic Association, and topics chosen by the association are debated by collegiate teams nationally. Membership is open to all students.

ART EXHIBITIONS

Monthly exhibitions of paintings, sculpture and the graphic arts are held in the gallery-lobby of Kenan Hall. All exhibitions are open without charge to the public, and the exhibitions occasionally feature student art.

ORGANIZATIONS

A variety of social, academic, and service organizations serve to enhance student life at The University of North Carolina at Wilmington. National fraternities are established on the campus to recognize students for their leadership and service activities. Various departments in the university have locally and nationally organized groups to stimulate interest in specific areas and to develop professional attitudes. These groups maintain high scholastic standards.

STUDENT GOVERNMENT ASSOCIATION

The core of student life at the university is the Student Government Association. Officers are elected by the student body, and other representatives by classes within the student body.

The association is a democratic organization, permitting expression of student opinion, working for the best interests of the university and upholding a high standard of morals and conduct.

The Student Government Association charters all recognized clubs within the institution and supervises their organization and objectives. It is also responsible for the disbursement of approximately half of the student activity fee. This money supports the Student Government Association in its objectives and campus activities. The association is a member of the North Carolina Student Legislature, the National Entertainment Conference and the Union of Student Body Presidents in North Carolina.

THE SOCRATIC SOCIETY

The Socratic Society is an honorary scholastic society formed in 1968 to give special recognition to seniors of outstanding academic accomplishment. It is sponsored by faculty members who belong to the scholastic honorary fraternity Phi Beta Kappa.

Graduating seniors are elected to the society if they have attained an overall quality point average of better than 3.5 and are recommended by the faculty of the area in which they are concentrating.

STUDENT UNION PROGRAM BOARD

The Student Union Program Board is a group of students who concentrate on bringing low-cost, innovative programming to campus. A billiard exhibition and hoedown are examples of activities it has sponsored. Membership is open to any interested student.

FRATERNITIES

SOCIAL FRATERNITIES:
Delta Upsilon
Pi Kappa Phi
Tau Kappa Epsilon
SERVICE GROUPS:
Alpha Phi Omega
PROFESSIONAL FRATERNITIES:
Pi Mu Epsilon
Sigma Alpha Beta

CLUBS AND OTHER ORGANIZATIONS

Astronomy Club
Baptist Student Union
Biology Club
Business Club
Chemistry Club
Chess Club
Cuda of Wilmington (Diving)
Debate Team
English Club
French Club
History Club
Math Club
Motoburyu Karate Club
Physical Education Majors' Club
Physics Club
Physics Honor Society
Psychology Club
Rowing Club
Sociology Club
Spanish Club
Student Art League
Student Music Educators National Conference
Student North Carolina Association of Educators
Student Nurses' Association
UNC-W Community Orchestra
UNC-W Veterans Association
Wantu Wazuri

WHO'S WHO AMONG STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES

The University of North Carolina at Wilmington participates in

this national organization which lists in its annual directory outstanding campus leaders. Selection of the candidates is made by a nominating committee composed of faculty, administration and students.

HOGGARD MEDAL FOR ACHIEVEMENT

A medal, presented through the generosity of the late Dr. John T. Hoggard, is awarded annually to the graduating senior who, in the opinion of the faculty, has shown the most improvement during his years at the university.

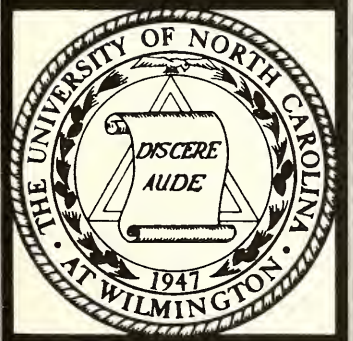
MOST VALUABLE PLAYER AWARD

The Most Valuable Player Award is given each year to the basketball player who is considered by other players to be of greatest value to his team.

ALUMNI ASSOCIATION SCHOLASTIC ACHIEVEMENT AWARD

The Alumni Association of the University of North Carolina at Wilmington each year at commencement presents an award to the senior who has attained the highest academic average in his graduating class.

UNIVERSITY POLICIES



UNIVERSITY POLICIES

The filing of an *application for admission* shall be construed as both an evidence and a pledge that the applicant accepts the standards and regulations of The University of North Carolina at Wilmington and agrees to abide by them. Each student, by the act of registering, obligates himself to obey all rules and regulations of the university as stated in the student handbook, the university catalog and other university publications. The university reserves the right to ask for the withdrawal of any student who refuses to adhere to the standards of the institution.

STATEMENT OF UNIVERSITY POLICIES, PROCEDURES, AND DISCIPLINARY ACTIONS IN CASES OF DISRUPTION OF EDUCATIONAL PROCESS

ADOPTED BY THE BOARD OF TRUSTEES
OCTOBER 27, 1970

CHAPTER V OF *CODE PROVISIONS GOVERNING THE UNIVERSITY OF NORTH CAROLINA, BYLAWS OF THE BOARD OF TRUSTEES, AND DUTIES OF THE UNIVERSITY OFFICERS.*

Section 5-1. Policies Relating to Disruptive Conduct

The University of North Carolina has long honored the right of free discussion and expression, peaceful picketing and demonstrations, the right to petition and peaceably to assemble. That these rights are a part of the fabric of this institution is not questioned. They must remain secure. It is equally clear, however, that in a community of learning willful disruption of the educational process, destruction of property, and interference with the rights of other members of the community cannot be tolerated. Accordingly, it shall be the policy of the University to deal with any such disruption, destruction or interference promptly and effectively, but also fairly and impartially without regard to race, religion, sex or political beliefs.

Section 5-2. Definition of Disruptive Conduct

(a) Any faculty member (the term "faculty member", wherever used in this Chapter V, shall include regular faculty members, full-time instructors, lecturers, and all other persons exempt from the

North Carolina State Personnel System (Chapter 126 of the General Statutes as amended) who receive compensation for teaching, or other instructional functions, or research at the University), any graduate student engaged in the instructional program, or any student who, with the intent to obstruct or disrupt any normal operation or function of the University or any of its component institutions, engages, or incites others to engage, in individual or collective conduct which destroys or significantly damages any University property, or which impairs or threatens impairment of the physical well-being of any member of the University community, or which, because of its violent, forceful, threatening or intimidating nature or because it restrains freedom of lawful movement, otherwise prevents any member of the University community from conducting his normal activities within the University, shall be subject to prompt and appropriate disciplinary action, which may include suspension, expulsion, discharge or dismissal from the University.

The following, while not intended to be exclusive, illustrate the offenses encompassed herein, when done for the purpose of obstructing or disrupting any normal operation or function of the University or any of its component institutions: (1) occupation of any University building or part thereof with intent to deprive others of its normal use; (2) blocking the entrance or exit of any University building or corridor or room therein with intent to deprive others of lawful access to or from, or use of, said building or corridor or room; (3) setting fire to or by any other means destroying or substantially damaging any University building or property, or the property of others on University premises; (4) any possession or display of, or attempt or threat to use, for any unlawful purpose, any weapon, dangerous instrument, explosive, or inflammable material in any University building or on any University campus; (5) prevention of, or attempt to prevent by physical act, the attending, convening, continuation or orderly conduct of any University class or activity or of any lawful meeting or assembly in any University building or on any University campus; and (6) blocking normal pedestrian or vehicular traffic on or into any University campus.

(b) Any person engaged in the instructional program who fails or refuses to carry out validly assigned duties, with the intent to obstruct or disrupt any normal operation or function of the University or any of its component institutions, shall be subject to prompt and appropriate disciplinary action under this Chapter V if (but only if) his status is such that he is not subject to the provisions of Section 4-3 of Chapter IV.

Section 5-3. Responsibilities of the Chancellor

(a) When the Chancellor has cause to believe that any of the provisions of this Chapter V have been violated, he shall forthwith investigate or cause to be investigated the occurrence, and upon identification of the parties involved shall promptly determine whether any charge is to be made with respect thereto.

(b) If he decides that a charge is to be made, he shall, within thirty (30) days after he has information as to the identity of the alleged perpetrator of the offense but in no event more than twelve (12) months after the occurrence of the alleged offense, (i) refer the case to the appropriate existing University judicial body, or (ii) refer the matter to a Hearing Committee drawn from a previously selected Hearings Panel which, under this option, is required to implement action for violation of Section 5-2 (a) or (b) of this Chapter. If the case is referred to an existing University judicial body under (i) above, the procedural rules of that body shall be followed, and subsections (c) through (f) below shall not be applicable. If the matter is referred to a Hearing Committee under (ii) above, the procedural rules prescribed in subsection (c) through (f) shall be followed.

(c) The accused shall be given written notice by personal service or registered mail, return receipt requested, stating:

(1) The specific violations of this Chapter V with which the accused is charged.

(2) The designated time and place of the hearing on the charge by the Hearing Committee, which time shall not be earlier than seven (7) nor later than ten (10) days following receipt of the notice.

(3) That the accused shall be entitled to the presumption of innocence until found guilty, the right to retain counsel, the right to present the testimony of witness and other evidence, the right to cross-examine all witnesses against him, the right to examine all documents and demonstrative evidence adverse to him, and the right to a transcript of the proceedings of the hearing.

(d) The Hearing Committee shall determine the guilt or innocence of the accused. If the person charged is found guilty, the Hearing Committee shall recommend to the Chancellor such discipline as said body determines to be appropriate. After considering such recommendation the Chancellor shall prescribe such discipline as he deems proper. In any event, whether the person is found guilty or not guilty, a written report shall be made by the Chancellor to the President within ten (10) days.

(e) Any person found guilty shall have ten (10) days after notice of such finding in which to appeal to the President of the University. Such an appeal if taken shall be upon the grounds set forth in Section 5-5.

(f) Any accused person who, without good cause, shall fail to appear at the time and place fixed for the hearing of his case by the Hearing Committee shall be suspended indefinitely or discharged from University employment.

(g) The Chancellor, unless so ordered or otherwise prevented by court, shall not be precluded from carrying out his duties under this Chapter V by reason of any pending action in any State or Federal court. Should a delay occur in prosecuting the charge against the accused because the accused or witnesses that may be necessary to a determination of the charge are involved in State or Federal court actions, the time limitations set forth in this Section 5-3 shall not apply.

(h) Conviction in any State or Federal court shall not preclude the University or any of its officers from exercising disciplinary action in any offense referred to in this Chapter V.

(i) Nothing contained in this Chapter V shall preclude the President or the Chancellor from taking any other steps, including injunctive relief or other legal action, which he may deem advisable to protect the best interests of the University.

Section 5-4. Aggravated Acts or Threatened Repetition of Acts

(a) The Chancellor of each of the component institutions of the University shall appoint an Emergency Consultative Panel which shall be composed of not less than three (3) nor more than five (5) faculty members and not less than three (3) nor more than five (5) students who shall be available to advise with the Chancellor in any emergency. No member of such Panel shall serve for more than one (1) year unless he be reappointed by the Chancellor. The Chancellor may make appointments, either temporary or for a full year, to fill any vacancies which may exist on the Panel.

(b) If, in the judgment of the Chancellor, there is clear and convincing evidence that a person has committed any of the acts prohibited under this Chapter V which, because of the aggravated character or probable repetition of such act or acts, necessitates immediate action to protect the University from substantial interference with any of its orderly operations or functions, or to prevent threats to or acts which endanger life or property, the Chancellor, with the concurrence as hereinafter provided of the Emergency Consultative Panel established pursuant to (a) above, may

forthwith suspend such person from the University and bar him from the University campus; provided, however, that in the event of such suspension the person suspended shall be given written notice of the reason for his suspension, either personally or by registered mail addressed to his last known addresses, and shall be afforded a prompt hearing, which, if requested, shall be commenced within ten (10) days of the suspension. Except for purposes of attending personally any hearings conducted under this Chapter V, the bar against the appearance of the accused on the University campus shall remain in effect until final judgment has been rendered in his case and all appellant proceedings have been concluded, unless such restriction is earlier lifted by written notice from the Chancellor.

(c) A quorum of the Emergency Consultative Panel provided for in (a) above shall consist of not less than four (4) of its members, and the required concurrence shall have been obtained if a majority of such quorum shall indicate their concurrence. The Chancellor shall meet personally with members of such Panel at the time he seeks concurrence, if it is feasible to do so. However, if the circumstances are such that the Chancellor deems it not to be feasible to personally assemble such members, then he may communicate with them or the required number of them individually by telephone or by such other means as he may choose to employ, in which event he may proceed as provided in (b) above after the required majority of such members have communicated their concurrence to him.

(d) In the Chancellor's absence or inability to act, the President may exercise the powers of the Chancellor specified in this Section 5-4 in the same manner and to the same extent as could the Chancellor but for such absence or inability to act.

Section 5-5. Right of Appeal

Any person found guilty of violating the provisions of this Chapter V by the Hearing Committee referred to in Section 5-3 shall have the right to appeal the finding and the discipline imposed upon him to the President of the University. Any such appeal shall be in writing, shall be based solely upon the record, and shall be limited to one or more of the following grounds:

(1) That the finding is not supported by substantial evidence;

(2) That a fair hearing was not accorded the accused; or

(3) That the discipline imposed was excessive or inappropriate.

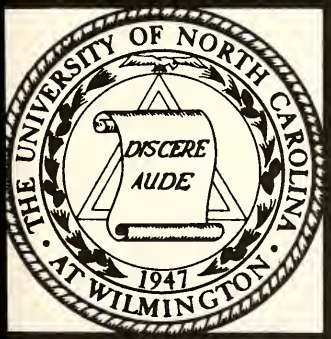
It shall be the responsibility of the President to make prompt disposition of all such appeals, and his decision shall be rendered

within thirty (30) days after receipt of the complete record on appeal.

Section 5-6. No Amnesty

No administrative official, faculty member, or student of the University shall have authority to grant amnesty or to make any promise as to prosecution or non-prosecution in any court, State or Federal, or before any student, faculty, administrative, or Trustee committee to any person charged with or suspected of violating Section 5-2 (a) or (b) of these Bylaws.

ACADEMIC REGULATIONS



ACADEMIC REGULATIONS AND PROCEDURES

ORIENTATION

An orientation program is required of all entering students prior to the beginning of fall and spring semesters. Its purpose is to acquaint the student with opportunities and services at the university and to provide information needed for registration. Students are notified by mail of the time to report for the activities involved. Each freshman and transfer student is assigned to the department of his major interest for advising purposes.

REGISTRATION

Registration is limited to the first three days of the semester as specified in the university calendar of events. Classes may not be added after the last day of registration. Students may take 12 to 18 hours without restriction. Students who have a cumulative quality point average of 3.5 may be allowed, with special permission of the Vice Chancellor for Academic Affairs, to carry a maximum of 20 semester hours.

PRE-REGISTRATION

Pre-registration for those students currently enrolled is held each semester. Students who complete pre-registration and pay fees by the designated date are registered except in the event that they are declared academically ineligible at the end of the preceding semester.

TRANSFER OF CREDIT

Students transferring from a two-year institution will receive up to 62 semester hours of academic credit from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will be included in this total.

Students transferring from a four-year institution will receive up to a maximum of 92 semester hours from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will also be included.

A maximum of 15 semester hours earned through correspondence may be applied toward graduation. Credit earned in another institution with a grade of "C" or better is accepted by the uni-

versity if the work transferred is comparable to offerings of The University of North Carolina at Wilmington. All grades earned at another institution are entered on the student's record at the time of transfer exactly as earned. However, quality points earned at other institutions are not transferable and are not used in computing grade point averages except in the case of students applying to enter the teacher education program and of seniors graduating with honors and/or distinction.

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the Advanced Placement Program of the College Entrance Examination Board. A freshman who scores a grade of 5, 4, or 3 on the final examination in any field will receive appropriate college credit and advanced placement in that field. Students taking Advanced Placement Tests should have the test booklets and score reports sent to the Office of Admissions for evaluation concerning placement and credit. Individual departments will determine the specific courses for which credit will be given.

Students who are talented and well-prepared, but who have not participated in the Advanced Placement Program in high school, may apply to participating departments for the Advanced Placement Test or the College-Level Examination. Every department for which such tests are available will offer them upon request to any student during two (2) scheduled testing periods each year.

Students who have been exempted with credit given at an accredited college or university may be exempted with credit given at The University of North Carolina on an individual basis, as determined by the appropriate department chairman. Students who have been exempted without credit will not be given exemption or credit, but may elect to take one of the above examinations for possible exemption with credit. Exemptions may be granted on an individual basis by the Vice Chancellor for Academic Affairs upon recommendation of the appropriate department chairman in those cases in which a student has demonstrated his knowledge of a particular field by subsequent course work.

GRADES AND REPORTS

The University of North Carolina at Wilmington uses the quality point system and semester hour credit for calculating student

achievement. Grade symbols used are: A-excellent, B-good, C-average, D-passing, F-failure, I-incomplete, WP-withdrawal passing, WF-withdrawal failing.

Quality points are assigned as follows: 4 for a grade of "A"; 3 for a grade of "B"; 2 for a grade of "C"; 1 for a grade of "D." No quality points are given for a grade of "F", "WP" or "WF." The quality point ratio is determined by dividing the accumulated number of quality points earned by the accumulative number of semester hours undertaken. Hours attempted for which a grade of "F" or "WF" has been assigned must be included in this calculation.

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed within one calendar year from the end of the semester in which the incomplete was given; otherwise, the "I" becomes an "F."

Grade reports are mailed to the student at the end of each semester.

Withdrawal

A student may withdraw from the university or from any course during the period of registration as stated in the catalogue without having a grade entered on his record.

From the end of registration through the fourteenth week a student may withdraw from the university or from any course and receive either a WP or WF. A grade of WP will not affect the average; a grade of WF counts as hours attempted and will affect the average. During the last three weeks of the semester if a student withdraws from the university or from a single course, he will receive a grade of F.

Any student who finds it necessary to withdraw from the university must give written notice of his intention to withdraw to the Office of the Vice Chancellor for Student Affairs. A student who fails to give written notice of his intention to withdraw will receive a grade of F in all courses.

Auditing

The auditing of courses without credit is permitted by special permission of the registrar and of the instructor involved. Individuals not regularly enrolled as students in the university who wish

to audit courses will be classified as special students and will be required to pay regular tuition and fees. University students in regular status will be permitted to audit courses and must pay the same tuition and fees as required for credit courses.

Class Attendance

Students are expected to be present at all regular class meetings and examinations for the courses in which they are registered. When a student is absent from classes to the extent that his success in the course is jeopardized, the instructor will inform in writing both the student and the appropriate dean. The number of absences allowed for a course will be determined by the individual instructor. It is the responsibility of the instructor, during the first week of class, to inform the students of his policies concerning class attendance and grading.

CLASSIFICATION OF STUDENTS

Students are classified as freshmen, sophomores, juniors, and seniors. Semester hours passed are used to determine these classifications. In order to graduate in 8 semesters, a student must average 15 to 16 hours per semester. The required number of hours passed for each classification is as follows:

Less than 26 semester hours credit—Freshman
From 27-58 semester hours credit—Sophomore
From 59-88 semester hours credit—Junior
More than 89 semester hours credit—Senior

DEANS LIST

At the close of each semester, regular students who are carrying a full load of 12 semester hours will be included in the Dean's List providing they have no grade lower than a "C" and providing the quality point average of all their grades for that semester is 3.0 or better.

TRANSCRIPTS

All students are entitled to one official transcript of their work without charge. Additional copies of the transcript at a cost of $1.00 each may be obtained upon written request to the Office of the Registrar.

CHANGE OF NAME AND ADDRESS

It is the obligation of every student to notify the Office of the Registrar of any change in name or address.

INDEBTEDNESS

All indebtedness to the university must be satisfactorily settled before a diploma or transcript of record will be issued.

Retention, Dismissal and Readmission

Scholarship is both encouraged and required at The University of North Carolina at Wilmington. In order to remain at the university, all students must meet the quality point requirements as outlined below:

RETENTION CHART

Total Hours Attempted	Required Quality Point Average for Eligibility To Continue in the University
27-58	1.2
59-88	1.5
89 or more	1.8

Transfer students are placed in the above retention chart based on total hours attempted at all institutions attended. A transfer student's quality point average is computed only on work attempted through The University of North Carolina at Wilmington.

Students who do not meet the minimum quality point requirement for retention at the conclusion of the spring semester will be declared ineligible. These students will be allowed to make up deficiencies during the summer sessions of this University which immediately follow the spring semester in which they were declared ineligible. If such deficiencies are not removed in this manner, the student will be dismissed from the university for one semester and will be required to apply for readmission to any subsequent regular semester. Readmission, if allowed, is upon a probationary basis and such students must prove themselves by meeting the required quality point average as outlined in the chart above. However any reenrolled student who makes a 2.0 average or better during the first semester after his return, but who fails to reduce his quality point deficiency to the required level,

will be granted one additional semester in which to meet this requirement.

A second academic dismissal is final unless eligibility for continued residence or for readmission is restored by completion of sufficient work during summer sessions at The University of North Carolina at Wilmington.

Students who wish to restore their eligibility by taking courses at institutions other than The University of North Carolina at Wilmington may do so only with written permission of the Vice Chancellor for Academic Affairs.

Any full-time student who fails to pass at least three hours during any semester is subject to academic dismissal for one semester, regardless of his quality point standing. Freshmen, other than transfer students, must earn at least three semester hours of credit the first semester and six additional hours during the second semester of the first year. Any student who fails to meet these requirements will be subject to academic dismissal. These students must also meet the minimum quality point ratio on hours attempted listed in the above table if they wish to continue in the university.

REQUIREMENTS FOR GRADUATION

Students may qualify for the bachelor's degree by completing successfully (1) the basic studies requirements, (2) an approved course of study in an area of concentration, (3) a total of 124 semester hours of credit, and (4) a minimum quality point average of 2.0 The final 15 hours of credit required for the concentration must be completed at The University of North Carolina at Wilmington.

Before graduation, all seniors are invited to take the Aptitude Test of the Graduate Record Examination administered by the Educational Testing Service. The test is scheduled to be given on the Wilmington campus during the spring semester.

Graduation will be certified at the end of the term in which all academic requirements are completed, providing the final 30 hours of course credit are completed at the university at Wilmington.

Application for graduation must be filed in the Office of the Registrar six weeks prior to the beginning of the term in which the student expects to graduate.

In advising and registering students, the deans, the registrar and the faculty advisers try to make certain that every student who intends to graduate from the university registers for those courses which are required for a degree. The student, however, must assume the final responsibility for meeting the graduation requirements set forth in the university catalogue.

A student who enrolls at The University of North Carolina at Wilmington during any academic year and who earns credit for work done during the year may always graduate under the provisions of the catalogue under which he entered or under any subsequent catalogue, providing he completes all graduation requirements within six years of the expiration date of the catalogue chosen.

Participation in the graduation exercises is required of all eligible students unless excused by the Vice Chancellor for Student Affairs.

REQUIREMENTS FOR A DOUBLE MAJOR

A student may elect to major in two separate disciplines with the permission of the chairman of each of the departments and on the condition that the student meet all requirements for each major. The student who completes requirements for a double major will receive only one degree, but his record will indicate both majors at the time of his initial graduation.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree may receive a second baccalaureate degree if it is a different degree and a different major by fulfilling the following requirements:

(1) He must meet all the requirements for the second degree and major.
(2) He must complete a minimum of 30 hours in residence beyond the requirements for the first degree.

Degrees with Distinction

Three degrees with distinction are granted to graduating students based on all work attempted in meeting requirements for the degree as follows:

Cum Laude for an overall average of 3.50
Magna Cum Laude for an overall average of 3.70
Summa Cum Laude for an overall average of 3.90

Degrees with distinction are granted to transfer students under the following conditions:

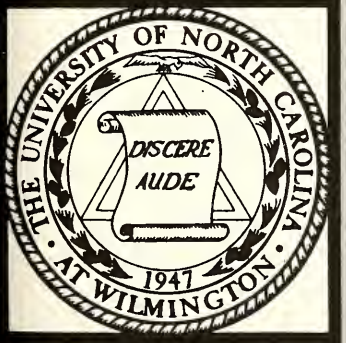
1. The student must have the required overall average on all work attempted (including any transfer credit).
2. The student must have the required average on work completed at The University of North Carolina at Wilmington.

Students who complete the Senior Honors Program satisfactorily will be graduated "With Honors in" the discipline in which the special work is undertaken.

OFF-CAMPUS COURSES

Students who enroll in off-campus courses (extension, correspondence, or summer school) and wish to apply credit in these courses toward a degree at The University of North Carolina at Wilmington must obtain written approval of the major department and the Vice Chancellor for Academic Affairs before registering for the course. This permission must be filed in the Registrar's Office on forms supplied by that office.

GENERAL DEGREE REQUIREMENTS



GENERAL DEGREE REQUIREMENTS

A primary objective of the curriculum is to provide an opportunity for every student to develop those skills in communication appropriate to the needs of modern society, and to acquire an understanding of the humanities, history, and the social and natural sciences as bases for cultural enjoyment and economic advancement. The basic requirements are designed to help meet this objective.

Basic Studies Requirements

To qualify for the bachelor's degree from The University of North Carolina at Wilmington, all students must meet the basic studies requirements as outlined below, and in fulfilling these requirements must acquire a total of forty-five semester hours less exemptions.

A. Basic Skills
   Courses taken to satisfy basic skills may not be used to satisfy divisional requirements. These course requirements may be waived if the student demonstrates by examination an appropriate proficiency in these basic skills areas:
   1. English Composition (6 hours)
      Required: English 101 and 102
      Composition (3-3)
   2. Mathematics (3 hours)
      Required: One of the following courses: Mathematics 101, 111, 115, 121, or any three-semester hour mathematics or statistics course above these levels except Mathematics 305.
   3. Physical Education (2 hours)
      Required: Physical Education 101 and 102 (1-1)

B. Divisional Requirements
   1. Humanities (9-15 hours)
      Required: A minimum of nine and a maximum of fifteen hours elected from at least two of the following areas:
      (a) English
          All courses except 245, 305, 306, 307, 308, and 345
      (b) History
          All courses listed in the catalogue
      (c) Modern Languages
          All courses listed in the catalogue

(d) Philosophy and Religion
All courses listed in the catalogue

2. Creative Arts (3-6 hours)
Required: A minimum of three and a maximum of six hours elected from the following areas:
(a) Art
Art 201, 202, 203, and all beginning studio courses except 105, 106, and 107
(b) Drama and Speech
Drama and Speech 115, 215, 221, and 222, 225, and 235
(c) Music Education
Music 101, 102, 105, 115, 116, 134, and 303
(d) English
English 307 and 308

3. Natural Science and Mathematics (7-12 hours)
Required: A minimum of seven and a maximum of twelve hours including at least one course in a laboratory science elected from the following areas:
(a) Biology
All courses listed in the catalogue
(b) Chemistry
All courses except 107
(c) Mathematics
All Mathematics courses except 101, 111, 115, 121, and 305
(d) Physics
Physics 101, 102, 105, 106, 201, and 202
(e) Earth Sciences
Geography 135, 335, 430, and 432
All Geology courses

4. Social and Behavioral Sciences (3-9)
Required: A minimum of three and a maximum of nine hours elected from the following areas:
(a) Economics
All courses listed in the catalogue
(b) Geography
All courses except 135, 335, 430, and 432
(c) Political Science
All courses listed in the catalogue
(d) Psychology
All courses listed in the catalogue
(e) Sociology-Anthropology
All courses listed in the catalogue

REQUIRED PHYSICAL EDUCATION

Students should expect to develop through participation in the physical education program activity skill, more efficient physiological function, and effective movement.

The university requires all students to complete with a passing grade two semesters of activity courses. This requirement for graduation must be fulfilled during the first two years unless postponement is authorized by the chairman of the Department of Physical Education.

The above requirement must also be completed by students transferring from other institutions who have not had its equivalent. A transfer student who has not completed this requirement and who is not enrolled for a sufficient number of semesters to fulfill the requirement shall enroll for physical education activity courses for each semester he is enrolled.

The university requires that all students furnish information concerning their current health status. This information is provided on the Report of Medical History form which is kept on file in the Student Health Services Center and is a prerequisite to (1) registration in any physical education activity course, (2) participation in any intramural activity, and (3) utilization of the physical education facilities for recreational purposes.

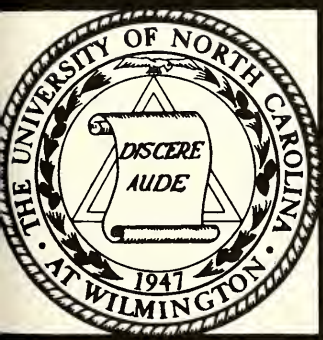
On the basis of this information the Student Health Services Center will place the student in one of the three categories listed below:

A. Unrestricted participation
B. Restricted participation
C. Temporarily restricted participation because of an injury or illness.

The requirement in physical education may be waived wholly or in part if requested by the student for any of the following reasons:

1. Upon recommendation of the university physician.
2. If the student enters the university at the age of 27 or older.
3. If he is a veteran with at least one continuous year of active military service.
4. Under exceptional circumstances on approval by the chairman of the Department of Physical Education.

ACADEMIC PROGRAMS



ACADEMIC PROGRAMS

The University of North Carolina at Wilmington offers four-year programs leading to the Bachelor of Arts and the Bachelor of Science degrees and a two-year program leading to the Associate in Arts degree in Nursing. Professional programs include the James Walker Memorial Associate Degree Program in Nursing, the Medical Technology Program and the Teacher Education Program. Pre-Professional programs are offered in engineering, engineering operations, medicine, dentistry, forestry, law, pharmacy and agriculture. The university has developed special programs in marine sciences, marine archaeology, and environmental studies. It also has an Honors Program, a Resident Lectureship in Judaic Studies, and a Continuing Education Program.

DEGREES OFFERED

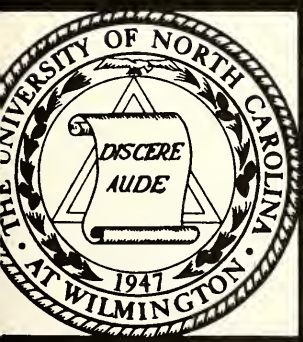
Areas of Concentration for the Bachelor of Arts Degree

Biology
Chemistry
Creative Arts:
  Art
  Drama
  Music
Computer Science
Earth Sciences
Economics
Elementary Education
English
Environmental Studies
French
History
Mathematics
Music Education
Philosophy and Religion
Physical Education
Physics
Political Science
Psychology
Social Science
Sociology
Spanish

Areas of Concentration for the Bachelor of Science Degree

Accounting
Biology
Business Administration
Chemistry
Computer Science
Economics
Marine Biology
Mathematics
Medical Technology
Physics

DEPARTMENTAL REQUIREMENTS



DEPARTMENTAL REQUIREMENTS

ACCOUNTING

(See Business and Economics)

ANTHROPOLOGY

(See Sociology and Anthropology)

ART

Requirements for a concentration in Creative Arts—Art for the B.A. degree: Art 111-112, 141-142, 143-144; 18 hours to be chosen from 2 studio areas, 2 hours of technical skills, senior exhibition; 6 hours of Art History (From 201, 202, 203); 3 hours of history from each of the following areas: Drama & Speech, Music; 6 hours to be chosen from practical or theoretical courses in Drama & Speech, or Music (histories not included). Electives chosen in consultation with advisor. A "C" or better grade in each Art course taken.

BIOLOGY

Requirements for a concentration in Biology for the B.A. degree: Biology 105, 205, 206, 495, and a minimum of 23 hours chosen from Biology 235 and courses numbered above 299. Collateral requirements are Chemistry 101-102 and a minimum of 16 hours chosen from the listed courses in at least two of the following areas: Chemistry 311-312, 465; Physics 101-102 or 105 or 201-202, 260; Geography-Geology 105, 115, 205, 230, 305, 432; Mathematics 211-212-213, 225, Computer Science 105 or 111 and 115; Statistics 265; Psychology 456, 457. A "C" or better average on Biology courses at the 300-400 level.

Requirements for a concentration in Biology for the B.S. degree: Biology 105, 205, 206, 335, 335-51, 345 or 355 or 395, 445, 495, and 11 additional hours in courses numbered above 299. Of these 11 hours at least 4 semester hours must be in advanced Botany and 4 in advanced Zoology offerings. Collateral requirements are Chemistry 101-102, 311-312; Physics 101-102 or 201-202; Mathematics 111-112 or 211-212. Two years of French or German are highly recommended. A "C" or better average on Biology courses at the 300-400 level.

Requirements for a concentration in Marine Biology for the B.S. degree: Biology 105, 205, 206, 362, 365 or 485-3, 395, 446 or 485-2, 455, 495, and a minimum of 4 semester hours from courses numbered above 299. Collateral requirements are Chemistry 101-102; Physics 101-102 or 201-202; Geology 205; Mathematics 111-112 or another higher sequence; and a minimum of 7 semester hours selected from the following: Chemistry 311-312, 333 or 335; Earth Sciences 230; Geography-Geology 105, 305, 430, 432. A "C" or better average on Biology courses at the 300-400 level.

Requirements for a concentration in Medical Technology for the B.S. degree: Biology 215, 425, and a minimum of 8 semester hours chosen from the following: Biology 335, 345, 445, and appropriate topics in 495. Chemistry 101-102, and 311-312. Satisfactory completion of the twelve-month Medical Technology Program at an affiliated hospital. Courses in Physics, Biochemistry, Quantitative Analysis, Computer Science, and Statistics are also highly recommended. It is recommended that students complete the following courses in the freshman year: Mathematics 111-112, Chemistry 101-102, Physics 101-102, English 101-102, and Physical Education 101-102. A "C" or better average on courses taken at the university.

BUSINESS AND ECONOMICS

The Department of Business and Economics offers the B.S. degree with concentrations in Accounting, Business Administration, and Economics. The department participates in offering the B.A. degree with a concentration in Social Science by providing a discipline in Economics. The department further provides coordination and primary support for three years of study at UNC-Wilmington leading to a B.S. degree in Engineering Operations (Production Sequence) from North Carolina State University after completion of the final year in residence on the Raleigh campus.

Requirements for a concentration in Accounting for the B.S. degree:

(a) Courses common to concentrations in Accounting, Business Administration, and Economics: ACG 201-202, BUS 206, BUS 302, BUS 335, ECN 251, and ECN 252

(b) Business Administration core: BUS 310, BUS 355, BUS 453 or BUS 455, and ECN 336, and BUS 461-462

(c) ACG 301-302, ACG 305, ACG 308, ACG 407, and two courses in Accounting numbered above 399.

The Accounting concentration prepares for careers as accountants in commerce and industry, government, and/or public accounting. Students expecting to sit for the Certified Public

Accountants (CPA) examination should take additional accounting courses numbered above 399. Students expecting to sit for the Certified Management Accountants (CMA) examination should take additional electives in management and finance.

Requirements for a concentration in Business Administration for the B.S. degree:

(a) Courses common to concentrations in Accounting, Business Administration, and Economics: ACG 201-202, BUS 206, BUS 335, ECN 251, and ECN 252

(b) Business Administration core: ACG 306, BUS 310, BUS 345, BUS 355, BUS 357, BUS 455, BUS 461-462, and ECN 336

(c) Four courses selected from accounting, business, and/or economics courses numbered above 299

The Business Administration concentration provides the academic preparation for management careers in product and service organizations and nonprofit institutions. The courses in (c) above may be selected from subject areas such as accounting, economics, finance, marketing, operations, and/or transportation, in order to provide a broader perspective of business operations, functions and problems, or to pursue a given function in greater depth.

Requirements for a Concentration in Economics for the B.S. degree:

(a) Courses common to concentrations in Accounting, Business Administration, and Economics: ACG 201-202, BUS 206, ECN 251, ECN 252, ECN 302, BUS 335

(b) ECN 315, ECN 316, ECN 495, and four courses in economics numbered above 299

(c) Three courses from accounting and/or business courses numbered above 299

(d) Three collateral elective courses selected upon approval of faculty adviser.

The Economics concentration prepares for careers which emphasize broad understanding of the operation of the economy and the proper choice of policies by both government and business enterprises.

Requirements for a concentration in Social Science with an emphasis in Economics for the B.A. degree:

(a) ECN 251, ECN 252, ECN 315, ECN 316, and at least three additional courses in economics numbered above 299

(b) Additional requirements for a concentration in Social Science for the B.A. degree as described under Social Science.

A "C" or above average is required in all accounting, business and/or economics courses required in the concentrations for the B.S. degree.

Students expecting to do graduate work in accounting, business administration, or economics are advised to complete a mathematical sequence through the calculus and to broaden their programs by electing courses in such areas as English, Mathematical Sciences, and the Social Sciences.

The joint program offered by the Department of Engineering Operations at North Carolina State University and The University of North Carolina at Wilmington allows a student to complete 90 semester hours of course work at UNC-Wilmington and 38 semester hours of course work at NCSU. Students interested in this program should contact the Chairman of the Department of Business and Economics at UNC-Wilmington or the Director, Engineering Operations Program, NCSU, Raleigh, North Carolina 27607.

CHEMISTRY

Requirements for a concentration in Chemistry for the B.A. degree:

Chemistry 101-102, 101-51, 102-51, 311-312, either 325 or 321 and 321-51, either 333 or 335, 355, 495, and 4 hours of advanced Chemistry, Mathematics 111-112 (or 115) and either 225 or 211, one of the Physics sequences, and two courses chosen from the following: advanced courses in Physics, advanced courses in Mathematics, and courses in Biology. A "C" or better average in Chemistry courses.

Requirements for a concentration in Chemistry for the B.S. degree:

Chemistry 101-102, 101-51, 102-51, 311-312, 311-91, 312-91, 321-322, 321-51, 322-51, either 333 or 335, 355, 435, 445, 491 (1 hour), 495, two of the following: CHM 415, 446, 465, or 491 (3 hours). Physics 201-202 and Mathematics 315. A "C" or better average in Chemistry courses. Students working for the B.S. degree should arrange their work so as to take Chemistry 321-322 in the junior year. Two years of German are recommended.

COMPUTER SCIENCE

(See Mathematical Sciences)

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA & SPEECH

Requirements for a concentration in Creative Arts—Drama for the B.A. Degree:

D & S 115, 321, 322, 460, 461, 485; at least 13 other hours in Drama and Speech; 6 hours of Drama history (from 221, 222, 225, 321, 322) three hours of history from each of the following areas: Art, Music; 6 additional hours to be chosen from either Art or Music (histories not included.) Electives chosen in consultation with adviser. A "C" or better average on all Drama & Speech courses attempted.

EARTH SCIENCES

The Department of Earth Sciences offers a concentration which permits the student to select one of three emphases preparing him for advanced studies or for teaching, research and technical careers available to one who holds the baccalaureate degree.

Requirements for a concentration in Earth Sciences for the B.A. degree:

Earth Sciences 230, 390, 490, 495; Geography 135, Geology 105; 7 to 9 hours from Geography 330, 335, 430, 432; and 7 to 8 hours from Geology 115, 205, 215, 216, 315. Collateral requirements are Chemistry 101-102, Physics 101-102, and Statistics 265. A "C" or better average on all courses taken within the department.

Requirements for a concentration in Geography for the B.A. degree:

Geography 135, 145, 215, 330; Earth Sciences 495; and at least 18 additional hours in Geography. Collateral requirements are Geology 105, Statistics 265, and at least 15 hours selected from Anthropology, Biology, Chemistry, Computer Science, Psychology and Sociology. A "C" or better average on all courses taken within the department. Students planning to attend graduate school are urged to take Computer Science 111 and 115, Mathematics 111-112 or 115, and French 101-102 or German 101-102.

Requirements for a concentration in Geology for the B.A. degree:

Geology 105, 115, 215, 216, 315, 316, 330; and Earth Sciences 230, 495. Collateral requirements are Chemistry 101-102, Statistics 265, and 9 hours selected from Biology, Chemistry, Computer Science, Earth Sciences, Geography and Physics. A "C" or better average on all courses taken within the department. Students planning to attend graduate school are urged to take Computer Science 211, Mathematics 211-212, French 101-102 or German 101-102, Geography 135 and a summer field course in Geology offered by another institution.

ECONOMICS

(See Business and Economics)

ELEMENTARY EDUCATION

Requirements for a concentration in Elementary Education for the B.A. degree:

Early Childhood (K-3): Education 315, 325, 355, 361, 365, 460-2, and three courses selected from the following: Education 335, 345, 405, 415, 425, and 461; Psychology 316 and 320. Required collaterals are Art 201 or 202, or 203, 385; Drama and Speech 115 or 215; and one three-hour course in literature offered by the English Department; Geography 135; History 231, 232; Music 115, 325; Political Science 205; Physical Education 305, 385; Physics 305; one course selected from Biology, Chemistry, Geology or Physics; and one of the following groups: Language Arts (9 hrs.); Social Studies (11 hrs.) three hours must be selected from Anthropology, Economics or Sociology; Art (12 hrs.); Mathematical Sciences (12 hrs.); Music (12 hrs.); Physical Education (12 hrs.); Science (11 hrs.).

Intermediate Education (4-9): Education 315, 460-6, 461, and three courses selected from the following: Education 335, 345, 361, 405, 415, and 425; Psychology 316 and 320. Required collaterals are Art 201 or 202 or 203, 385; Drama and Speech 115 or 215; English 345, and one three-hour course in literature offered by the English Department; Geography 135; History 231, 232; Mathematical Sciences 305; Music 115, 325; Political Science 205; Physical Education 305, 385; Physics 305; one course selected from Biology, Chemistry, Geology or Physics; and one of the following groups: Language Arts (9 hrs.); Social Studies (11 hrs.), three hours of which must be selected from Anthropology, Economics or Sociology; Art (12 hrs.); Mathematical Sciences (12 hrs.); Music (12 hrs.); Physical Education (12 hrs.); Science (11 hrs.).

Elementary Education degree candidates must earn a "C" or better grade on all Education and Psychology courses. NOTE: Approximately thirty semester hours from the list of collaterals may be used selectively to meet divisional requirements in basic studies.

ENGINEERING

(See Earth Sciences)

ENGLISH

Requirements for a concentration in English for the B.A. degree:

English 101-102, 211, 212, and 24 hours at the 300-400 level, including one American literature course, one Shakespeare course, 460, and five electives (which must include 305 and 306 for teacher certification). Fifteen hours of collaterals selected from: Art 201, 202, 203; Drama and Speech 221, 222; Music 115; or any courses offered by the Departments of Modern Languages and History. A "C" or better average on English courses.

ENVIRONMENTAL STUDIES

Requirements for a concentration in Environmental Studies for the B.A. degree:

Core: Environmental Studies 195, 495, Statistics 265 and Computer Science 111 and 115. Four courses representing four different disciplines selected from: Chemistry 333 (EVS 333); Physics 106 (EVS 106); Biology 205, 206; Geology 105; Geography 135. Three courses representing three different disciplines from: Political Science 305, 308; Sociology 205; Psychology 370 (EVS 370); Economics 305 (EVS 305).

Specialization: A minimum of 20 hours, taken from one of four options. All course sequences must be above the 299 level and approved by the Environmental Studies Chairman. A "C" or better average is required. Option (1) Marine Science: A sequence of courses including Biology 362, 466; Geology 205, 305, and Geography 432. Option (2) A disciplinary course sequence with an emphasis restricted to one of the following: Biology, Chemistry, Economics, Earth Sciences, Mathematical Sciences, Physics, Political Science, Psychology, Sociology. Option (3) A substantive interdisciplinary sequence selected from either (a) The Natural and Mathematical Sciences or (b) The Social and Managerial Sciences. Option (4) A topical multidisciplinary approach in which the student in conjunction with his adviser and the Environmental Studies Chairman designs his own specialization in order to investigate a specific environmental topic. The student will choose courses appropriate to the investigation and write a senior paper (EVS 490) at the completion of the project.

FRENCH

(See Modern Languages)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

HISTORY

Requirements for a concentration in History for the B.A. degree:

History 111, 112, 231, 232; an additional 24 hours in History (with a minimum grade of C) at the 300-400 level. Upper level work should encompass a broad range rather than specialization within one area of history, and students are expected to complete the required lower level courses before upper level ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least 4 of the following areas: Anthropology, Economics, English, Modern Languages, Geography, Political Science, Philosophy and Religion, and Sociology.

MARINE BIOLOGY

(See Biology)

MATHEMATICAL SCIENCES

Requirements for a concentration in Computer Science for the B.S. degree:

Computer Science 111, 211, 311, 325, 331, 332, and at least one laboratory (it is highly recommended that students take two) selected from Computer Science 115, 116, 117, and 118; Mathematics 335; and Statistics 361. In addition to these requirements there are three options described below, one of which a student must elect in order to complete the degree requirements. In general, enough latitude is allowed in each to accommodate a double major if the student wishes.

Option 1: Computer Science 340, 425, 431, 432, and six hours at the 300-400 level approved by the adviser; Mathematics 315; and Physics 201-202.

Option 2: Computer Science 410, 415, either 431, 432 or 340, 445, and six hours at the 300-400 level approved by the adviser; Mathematics 315, 336; and Physics 201.

Option 3: Computer Science 117, 340, 445, and twelve hours at

the 300-400 level approved by the adviser; six hours at the 300-400 level from Accounting, Business, or Economics.

A "C" or better average is required on Computer Science courses at the 300-400 level.

Requirements for a concentration in Mathematics for the B.S. degree:

Mathematics 115, 211-212-213, 315, 317, 335, 336, 411-412, and at least two additional 300-400 level Mathematics courses. Collaterals: Computer Science 111 and either 115, 116, 117 or 118; Chemistry 101; Physics 201-202; Statistics 361; and two courses at the 300-400 level chosen from Accounting, Chemistry, Computer Science, Economics, Physics, Philosophy and Religion 318, and Statistics. A "C" or better average on Mathematics courses at the 300-400 level. It is recommended that students elect at least a year of either French or German.

Requirements for a concentration in Mathematics for the B.A. degree:

Mathematics 115, 211-212-213, 315, 317, 335, 336, 411, and at least two additional 300-400 level Mathematics courses (which must include Mathematics 345 and 346 for teacher certification). Collaterals: Computer Science 111 and either 115, 116, 117 or 118; Physics 201-202; Statistics 361; and two courses at the 300-400 level chosen from fields in which Mathematics is applied. A "C" or better average on Mathematics courses at the 300-400 level. It is recommended that students elect at least a year of either French or German.

MEDICAL TECHNOLOGY

(See Biology)

MODERN LANGUAGES

The Department of Modern Languages offers the B.A. degree in French or Spanish.

Requirements for a concentration in French for the B.A. degree:

Completion of all 300 level courses in French and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305 or 306; History 111 and 112; one course in English literature; and one additional foreign language through the intermediate level.

Requirements for a concentration in Spanish for the B.A. degree:

Completion of all 300 level courses in Spanish and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305 or 306; History 111 and 112; one course in English literature; and one additional foreign language through the intermediate level.

MUSIC

Requirements for a concentration in Music Education for the B.A. degree:

Music 101-102, 201-202, 211, 212, 213; 6 semesters of applied music; 6 semesters of ensemble participation; a recital or thesis. Requirements for teacher certification by the Department of Public Instruction of the State of North Carolina: Music 121-122, 225, 226, 227, 306, 325, 326, 337, 405, and 406; professional education core required for certification. A "C" or better grade on each Music course taken.

Satisfactory completion of a piano proficiency examination is required of all students. Those who do not pass the proficiency examination upon entering the music program are required to take piano class until the level of proficiency in the examination has been reached. Attendance at weekly music department seminars is required.

Requirements for a concentration in Creative Arts-Music for the B.A. degree:

Music 101-102, 201-202, 301-302, 6 semesters of applied music; 6 semesters of ensemble participation; recital or thesis. Music 211, 212, 213; 3 hours of history from each of the two following areas: Drama & Speech, Art. Six additional hours to be chosen from either Drama and Speech or Art (histories not included). Electives chosen in consultation with adviser.

A "C" or better grade on each Music course taken. Satisfactory completion of piano proficiency ezamination is required of all students.

Those who do not pass the proficiency examination upon entering the music program are required to take piano class until the level of proficiency in the examination has been reached. Attendance at weekly music department seminars is required.

NURSING

Requirements for a concentration in Nursing for the A.A. degree:

Nursing 110, 120, 135, 220, 225, 250; English 101, 102; Psychology 105, 320; Sociology 105; Biology 215, 225; Chemistry 107; an elective from the Humanities or Creative Arts.

Completion of the program of studies requires a grade of "C" or better on each course carrying a Nursing title plus a "Satisfactory" score on all clinical laboratory work.

PHILOSOPHY AND RELIGION

Requirements for a concentration in Philosophy and Religion for the B.A. degree:

Philosophy and Religion 101, 201, 202, and 21 additional hours, including 9 at the 300-400 level, six of which must be at the 400 level. Collateral courses will be determined in individual consultation with the adviser.

PHYSICAL EDUCATION

Requirements for a concentration in Physical Education for the B.A. degree:

For a concentration with teacher certification: Physical Education 101, 102, 105, 215, 220 (minimum of 10 activities), 235, 305, 306, 316, 320, 355, 385, 415, 420, 435. Required collaterals: Biology 105, 206; Psychology 316 and 320 or 321; Education 315, 460.

For a concentration without teacher certification (Recreation Emphasis):

Physical Education 101, 102, 215, 265, 266, 267, 306, 316, 365, 366, 368, 415, 465. Required collaterals: Psychology 320, 321, 322; Sociology 215, 225.

PHYSICS

Requirements for a concentration in Physics for the B.A. degree:

Physics 201-202, 315, 321, 335, 400 (2 hours), 495 (1 hour), and 8 additional hours as recommended by the adviser; Mathematics 315, 316; a minimum of 4 hours in Chemistry. A "C" or better average in Physics courses at the 300-400 level.

Requirements for a concentration in Physics for the B.S. degree:

Physics 201-202, 315-316, 321-322, 335-336, 400 (3 hours), 495 (1 hour), and 6 additional hours in Physics as recommended by the adviser; Mathematics 315, 316 and 3 additional hours above the calculus; 2 semesters of Chemistry. A "C" or better average in Physics courses at the 300-400 level.

POLITICAL SCIENCE

Requirements for a concentration in Political Science for the B.A. degree:

Political Science 111, 205, 311 and 27 additional hours, of which 21 must be at the 300-400 level. At least one course at the 300-400 level must be taken in each of the following sub-fields of Political Science: American Government and Politics, Political Theory (Normative and Empirical) and Methodology, International Relations, Comparative Government. Required collaterals: 24 hours selected from at least four of the following disciplines: Anthropology, Economics, Environmental Studies, Geography, History, Psychology and Sociology. A "C" or better average on all 300-400 level Political Science courses. Students planning to do graduate work are urged to study a modern language and acquire a basic knowledge of Computer Science, Statistics and Mathematics through the calculus.

PSYCHOLOGY

Requirements for a concentration in Psychology for the B.A. degree:

Psychology 105, 225, 255, 305 and a minimum of 21 additional hours. These must include at least two courses from among 365, 370, 446, 447, and 465, and at least two from among 310, 410, 417, 420, 456, and 457. Twelve hours of collaterals from a related field and approved by the adviser are required. A "C" or better average on psychology courses must be maintained.

SOCIAL SCIENCE

Participating disciplines: Anthropology, Economics, Earth Sciences, Political Science, Psychology, and Sociology.

Requirements for a concentration in Social Science for the B.A. degree:

Forty-eight hours in the Social Sciences. Work must be taken in at least 3 areas with a minimum of 21 hours in one area and 12 hours in a second area of concentration. A minimum of 30 hours must be in courses above 299. Required collaterals: 6 hours in History and 3 hours in an introductory Statistics course (Statistics 265 or a departmental equivalent chosen from the student's major field).

SOCIAL WORK

(See Sociology and Anthropology)

SOCIOLOGY AND ANTHROPOLOGY

Requirements for a concentration in Sociology for the B.A. degree:

Sociology 105, 405, 406, 455, 490, and 18 additional hours, 12 of which must be at the 300-400 level; Computer Science 105; Mathematics 265. Additional knowledge of computer science and mathematics through calculus are recommended, particularly for those students who plan to attend graduate school. Collaterals will be decided upon in consultation with each advisee. A "C" or better average on each course at the 300-400 level.

The major specializations represented in the department are Sociology, Anthropology, Social Work, and Criminal Justice. Within Sociology some areas of emphasis are deviance, environmental studies, planning, change, population and urban ecology.

The department does offer some alternatives to the above requirements for students who opt to specialize in areas such as Social Work, Criminal Justice or Anthropology. These alternatives are periodically being updated and are always available in the department.

SPANISH

(See Modern Languages)

PROFESSIONAL PROGRAMS

JAMES WALKER MEMORIAL ASSOCIATE DEGREE PROGRAM IN NURSING

Director: Miss Dixon

The Nursing Program is designed as a two-year program to prepare graduates who will meet the requirements for the Associate in Arts degree in Nursing. Upon completion of the prescribed program, the graduates are eligible to write the State Board of Nursing Examination for licensure as registered nurses and will be able to provide patient-centered nursing care in beginning practitioner positions.

Admission to the Associate Degree Program in Nursing requires in addition to acceptance to the university an interview with and approval by the Department of Nursing.

MEDICAL TECHNOLOGY

Advisers: Mr. F. Allen, Mrs. Pittman

The University of North Carolina at Wilmington offers, in cooperation with affiliated hospitals which have been approved for this purpose by the American Society of Clinical Pathologists, the Bachelor of Science degree with a concentration in Medical Technology. The first six semesters of the program (90 semester hours) are completed on campus and students are required to attain a 2.0 average on work attempted. The final year is spent in residence at an approved affiliated hospital.

The completion of the first three years of the program does not necessarily mean the student will automatically be admitted to the twelve-month course in Medical Technology at a hospital. Application to the desired affiliated hospital should be made early in the junior year with the approval of the faculty adviser as entrance requirements may vary at individual hospitals. Upon acceptance by the hospital, the student must notify the adviser and fill out the required form.

Upon successful completion of this four-year program the student will receive the Bachelor of Science degree in Medical Technology from the university and will be eligible to take the examination for certification by the American Society of Clinical Pathologists (ASCP).

Application for graduation should be filed in the office of the registrar during the first semester of the junior year.

Requirements for the B. S. degree in Medical Technology are listed under Biology in the Departmental Requirements section of this catalogue.

THE TEACHER EDUCATION PROGRAM

Adviser: Dr. Hulon

The Teacher Education Program at The University of North Carolina at Wilmington stresses a broad education base, a sound subject matter preparation, and an appropriate emphasis on professional education to meet state certification requirements and to give the prospective teacher confidence.

All students who expect to follow the Teacher Education Program must be formally admitted into the program according to policy established by the University Council on Teacher Education. To be eligible for admission, students must have a higher academic average than is required minimally for retention in the university.

In addition to the basic requirements for graduation, the program includes the following courses on which a grade of "C" or better is required:

Psychology 316—Educational Psychology (3)
Psychology 320—Child Psychology (Elementary Teachers) (3)
Psychology 321—Adolescent Psychology (Secondary Teachers) (3)
Education 215—Orientation to Teaching (3)
Education 315—Historical and Philosophical Foundations of Education (3)
Education 371—Improvement in Reading Instruction (3)
Education 459—Sociological Foundations of Education (6)
Education 460—Theory and Practice of Teaching (9)

The university is authorized to certify students for teaching at the secondary level in the following areas: Biology, Chemistry, English, French, History, Mathematics, Music, Physical Education, Physics, and Spanish. Students seeking certification on the secondary level are required to complete a concentration in a subject area normally taught in secondary schools in addition to the professional work listed above.

Changes in requirements for certification are not a function of the university.

PRE-PROFESSIONAL PROGRAMS

PRE-ENGINEERING

Advisers: Mr. Dempsey, Mr. Long and Mr. Lupton

The university offers the first two years of work in engineering. On satisfactory completion of this program students transfer into the junior year at a specialized engineering school without loss of time toward graduation.

General Requirements: Mathematics 115, 211 (students with sufficient background should place immediately into Mathematics 211), 212, 213, 315; Chemistry 101, 102; Computer Science 111, and 115 or 116; Engineering 111, Physics 201, 202; English 101, 102, and one literature course; Economics 205; one History course;

Physical Education 101, 102, (N. C. State University requires 4 credit hours); and one elective (Civil Engineering students should consider Geography 330).

Specific Requirements:

Chemical Engineering: Chemistry 311, 312

Civil Engineering: Geology 105; Engineering 211, 212

Electrical Engineering: Physics 215, 216

ENGINEERING OPERATIONS (PRODUCTION SEQUENCE)

Adviser: Dr. Kaylor

The University of North Carolina at Wilmington offers jointly with North Carolina State University a program leading to the Bachelor of Science in Engineering Operations degree with a production sequence. Students in this program take 90 semester hours as specified below at UNC-Wilmington and the final 38 semester hours in residence at North Carolina State University. The degree is conferred by North Carolina State University at Raleigh.

Courses to be Taken at UNC-Wilmington:

	Semester Hours
*Physical Education	4
**English 102 Composition	3
*Literature	3
*History	3
*Humanities/Social Sciences	9
Economics 251 Principles of Economics	3
Economics 252 Principles of Economics or Business Administration 356 Personnel Management	3
Accounting 201 Principles of Accounting	3
+ Accounting 202 Principles of Accounting	3
Accounting 305 Cost Accounting or Accounting 306 Accounting for Management Control	3
Business Administration (one of the following): BUS 345, Marketing; BUS 348, Sales and Sales Management; BUS 356, Personnel Management; or BUS 461, Business Law	3
Economics 427 Labor Economics	3
Mathematics 211, 212, 213 Calculus with Analytic Geometry	12
+ + Statistics 265 Introduction to Statistics	3

Physics 201, 202 General Physics	10
Chemistry 101, 102 General Chemistry	8
Engineering 111, 112 Engineering Graphics	4
Computer Science 211 Algorithmic Languages	3
*Free Electives	7
Total Credits at UNC-W	90

*Specific courses to be selected by student within the prescribed areas.
**English 101 is not required except as prerequisite to English 102. Transfer credit will not be given toward Engineering curriculum.
+Accounting 202 is not required except as prerequisite to Accounting 305 or Accounting 306. Credits will be transferred as elective credits.
++In lieu of Statistics 265, Statistics for Engineers ST 361, may be taken by correspondence from NCSU.

PRE-MEDICINE AND PRE-DENTISTRY

Adviser: Dr. Levy

Students who expect to apply for admission to medical or dental schools should be aware of the high standard of work at the undergraduate level required by these professional schools and of the specific course requirements for admission.

Requirements for admission to medical schools differ slightly from those to dental schools. Basic work in Biology, Physics and Chemistry (including organic chemistry) is required in both instances. Students should plan their programs with the help of their pre-professional adviser.

PRE-FORESTRY

Adviser: Dr. Sieren

Students completing the pre-professional program in Forestry are eligible to transfer as juniors to North Carolina State University at Raleigh into the Foresty, Natural Resources Recreation, Recreation and Park Administration, Pulp and Paper Science and Technology, or Wood Science and Technology curricula. Students planning to transfer into the Forestry curriculum in the School of Forest Resources must start their transfer program with the Summer Camp.

PRE-LAW

Adviser: Dr. James Dixon

Students who plan to prepare for law school may select a major

in any discipline that fulfulls the general and specific requirements for a baccalaureate degree at UNC-W. In developing a pre-law program, the student should be aware of the recommendation of the Association of American Law Schools, which describes the basic skills and insights it believes fundamental to the later attainment of legal competence. These are (a) comprehension and expression in words, (b) critical understanding of human institutions and values with which the law deals; and (c) creative power in thinking. In order to develop these capacities, the association recommends a pre-legal education of "the broadest scope". To accomplish these goals The University of North Carolina at Wilmington offers a wide range of pre-law courses. Although Political Science and Business are frequently selected by pre-law students as their major, Economics, History, Sociology and others are sometimes selected. Regardless of the area of concentration, the pre-law student should be zealous in the selection of electives that will facilitate critical understanding of economic, political and social institutions. Since a lawyer must be able to communicate effectively, the pre-law student is well-advised to lay special emphasis on communicative skills. Also a knowledge of elementary accounting is desirable and highly recommended.

Finally, the pre-law student should remember that the quality of undergraduate instruction is more important than the subject matter area. The Association of American Law Schools recommends the selection of courses which require the greatest preparation and intellectural discipline. "The best trained applicant for law school," states the Association, "is the student who has studied under teachers who have inspired, challenged, and pressed him."

All candidates for law school are urged to apply for admission and register for the October or December administrations of the Law School Admission Test. This should be done during the fall of their senior year in college. The Law School Admission Test is explained fully in the Law School Admission Bulletin which is available in the Political Science Department at UNC-W. Additional information and helpful advice may be secured from designated pre-law advisers in the Department of Political Science.

PRE-PROFESSIONAL PROGRAMS IN PHARMACY AND AGRICULTURE

Pre-professional programs in Pharmacy, Agriculture and other fields are arranged in two-year to four-year programs. Students

interested in these programs will be assigned to faculty advisers familiar with requirements and recommendations of the respective professional schools.

SPECIAL PROGRAMS

MARINE SCIENCES

Marine Science activity at The University of North Carolina at Wilmington consists of instructional and research programs on the university's main campus as well as specialized research activities associated with its Institute of Marine Biomedical Research at Wrightsville Beach.

The Program in Marine Sciences on the university's main campus is a three-faceted one consisting of a Marine Biology curriculum leading to the B. S. degree, an Environmental Studies curriculum leading to the B.A. degree, and a Marine Science Research Program which includes faculty members engaged in various aspects of marine science research.

MARINE BIOLOGY CURRICULUM

The Marine Biology curriculum is the only one in the university system leading to the baccalaureate degree. It includes a basic introduction to the field of Biology with an emphasis in Marine Biology at the junior and senior levels. Full use is made of the natural laboratory provided by the adjacent Atlantic Ocean through extensive field work associated with various Marine Biology courses. Approved collateral requirements include marine-oriented course work in the physical sciences. The curriculum is flexible enough to meet the individual needs of the student enabling him to prepare for advanced studies or for teaching and research careers available to one with the baccalaureate degree. Requirements for the B.S. degree in Marine Biology are listed under Biology in the Departmental Requirements section of this catalogue.

MARINE SCIENCE RESEARCH PROGRAM

The Marine Science Research Program has a number of active participants with research interests covering several areas of Marine Biology, certain aspects of Physical and Chemical Oceanography, Marine Geology and Marine Biogeography. There are two categories of participants in the program: those who hold re-

search positions and those who hold regular teaching positions but who are also engaged in Marine Science research. All participants are involved in the Marine Science instructional program.

ENVIRONMENTAL STUDIES CURRICULUM

The Environmental Studies curriculum emphasizes the importance of multidisciplinary approaches in the study of environmental problems, particularly those dealing with the marine environment. The curriculum exposes the student to a broad range of investigatory procedures in the natural and social sciences, while allowing him to develop special capabilities within his primary area of interest.

The curriculum is divided into two parts: a multidisciplinary core consisting of course work in the natural and social sciences, including a series of Environmental Studies seminars, and an area of specialization consisting of course work in one or more of the approved disciplines. Those who wish to emphasize Marine Science may do so by electing an approved sequence of courses in Marine Science. Requirements for the B. A. degree in Environmental Studies are listed in the Departmental Requirements section of this catalogue.

INSTITUTE OF MARINE BIOMEDICAL RESEARCH

The Institute of Marine Biomedical Research bases its operations in a modern laboratory located near Wrightsville Beach. Its activities center around a program of research, and instruction by research participation, focusing upon a variety of physiological problems in the marine environment. The institute has achieved world-wide recognition for studies in high-pressure physiology and in the simulation of deep-ocean environments. Its facilities include a unique system of deep-ocean simulators capable of reproducing environments down to those prevailing at 35,000 feet, as well as specialized equipment for the study of the effects of high pressures on both experimental animals and man. In operations at sea, the institute has pioneered in the use of wet submersibles, in investigations concerning the chemical control of behavior in invertebrates, and in the capture of deep-sea fauna for experimental study. Activities on the institute's campus are supplemented by research cruises and expeditions which take students and faculty to environments that cannot be easily simulated on the North Carolina coast, including tropical marine environments, such as coral reefs, and environments where human populations live under stress, such as desert, tropical forest, and arctic regions.

FIELD SCHOOL IN MARINE ARCHAEOLOGY

The Department of Sociology and Anthropology, in cooperation with the Archaeology Section of the North Carolina Division of Archives and History, offers a unique experience in archaeological instruction during the summer. Primary emphases are the locating and mapping of underwater wrecks along the North Carolina coast between Cape Hatteras and Cape Fear. Actual excavation of some sites is followed by experiential training in the preservation and interpretation of recovered artifacts.

Previous archaeological experience, upper-class status, recognized scuba certification and medical fitness are required for participation in this program. Both the methodology of marine archaeology and actual experience of diving on sites are planned for each summer session.

THE TROPICAL EXPERIENCE

The Departments of Biology, Sociology and Anthropology, and Modern Languages offer a six-week summer field program in selected tropical areas of the world. The current program and that of the next few years will emphasize tropical Latin America. Students enrolling in the program may carry out investigations in tropical marine biology, tropical vertebrate zoology, tropical botany, tropical ecology, anthropology and archaeology of the tropical zones, or language and cultural studies.

HONORS PROGRAM

A student who has a quality point average of 3.0 or better (including all transferred work) over the first two and one-half years of college work (74 semester hours), who has completed at least 30 semester hours work with a 3.0 better quality point average at The University of North Carolina at Wilmington, and who is recommended by the chairman of the area in which he is concentrating, is eligible for admission to the Honors Program. This program involves independent study in the area of concentration, a paper reporting the results of the study, and an oral examination. Honors work is not intended to replace any specifically required course.

A student who enters the Honors Program will be required to complete six semester hours of honors work in the field of concentration during the last three semesters, with a maximum of three semester hours credit in any one semester. The Honors Program may be entered either at the beginning of the second semester of the junior year (on completion of 74 semester hours) or at the

beginning of the first semester of the senior year.

In order to graduate with honors, a student must successfully complete the program and have a 3.0 quality point average over all college work at the time of graduation. A student who does not retain an overall average of 3.0, however, may still receive credit for the honors project.

RESIDENT LECTURESHIP IN JUDAIC STUDIES

Through a Lectureship in Judaic Studies, the university offers a series of conferences and courses on the sources and resources of the Judaeo-Christian legacy. The courses may be taken on either a credit or a noncredit basis.

The lectureship is jointly sponsored by a group of donors and sponsors from the Wilmington area and the Jewish Chautauqua Society.

Full details on the lectureship, as well as information concerning the conferences and courses to be offered during a given semester, may be obtained by contacting the resident lecturer.

SUMMER SCHOOL

The Summer Session constitutes an integral part of the university's academic year. Students may take advantage of specially designed programs, such as marine archaeology and the Latin America experience. There are a variety of courses offered for students who wish to accelerate their progress toward the baccalaureate degree, to supplement the academic load carried during the regular terms, or to remove deficiencies.

Full information concerning the Summer Session may be obtained by contacting the director.

CONTINUING EDUCATION

The Office of Continuing Education serves as the coordinator, convener and catalyst for a variety of educational and service oriented activities throughout southeastern North Carolina. Part of its task is to develop an awareness of the continuing education needs of the community by working closely with business, industry, educational institutions, service organizations, social service agencies, government agencies, civic groups, and individuals.

Persons participating in university activities through the Continuing Education Program are subject to all the policies and academic regulations of the university. Applicants are admitted entirely on the basis of their academic qualifications and without reference to national origin, creed, color or sex.

REGISTRATION OF ADULTS AS SPECIAL STUDENTS

Persons who wish to enroll as special non-degree students or college graduate special students should do so through the Office of Continuing Education. (Regular degree candidates and audit students register through the Office of Admissions.)

(a) SPECIAL NON-DEGREE STUDENTS

Students who enroll in the special non-degree category are not formally admitted to the university as degree candidates.

Special non-degree students may take any course listed in the university's schedule of classes. They are limited to two courses per semester or per summer term. They must honor any prerequisite listed in the course description section of the catalogue. Academic credit is granted for courses successfully completed.

To be eligible for admission as a special non-degree student, one must meet the following requirements:

1. The candidate must have acquired a high school diploma.
2. The candidate must be at least 21 years of age.
3. The candidate must not have been suspended from a college or university within the past three years.
4. The candidate must not be classified as a degree student at The University of North Carolina at Wilmington.

It is possible for a special non-degree student to complete many of the required courses for the first two years of a degree program. All of these courses carry resident academic credit which, if applicable, may be transferred to a degree program by meeting the following requirements and procedures:

A special non-degree student who has never attended an institution of higher education may apply to the Admissions Office for admission as a regular degree candidate when he or she has completed a minimum of twelve semester hours with an overall "C" average. A special non-degree student who has attended another institution may apply for admission as a regular degree candidate after consultation with the Admissions Office. To avoid delay in having applications considered for admission as regular students, special non-degree students are advised to have transcripts from all institutions previously attended forwarded to the Admissions Office well in advance of the semester for which they wish to apply.

Since the maximum number of semester hours allowed in the special non-degree program is 27, students are advised to apply for admission as regular degree candidates early in the

semester in which this maximum number of hours is to be attained.

(b) COLLEGE GRADUATES

Any individual who already possesses a college degree and who wishes to enroll for a course at the university at Wilmington should register through the Office of Continuing Education. (Any individual with a degree who wishes to work toward a second baccalaureate degree should consult the Office of Admissions.)

College graduate special students may take any course listed in the university's schedule of classes. They are permitted to elect up to 18 hours per semester; more than that requires the special permission of the Vice Chancellor for Academic Affairs. They must honor any prerequisite listed in the course description section of the catalogue.

PROGRAMS AND SERVICES FOR BUSINESS AND INDUSTRY

The university through the Office of Continuing Education is prepared to offer a variety of short courses, conferences, and workshops designed specifically for business and industry. These activities may be conducted either by this university's faculty and staff or by individuals from other universities or organizations. The activities may include programs in communication, management, supervision, small business administration, computer programming, and other topics. Activities may be either custom designed for a specific business or industry or offered to the entire community as a regularly scheduled event.

The university at Wilmington works closely with other institutions in the University of North Carolina system in an attempt to bring programs or activities not available on this campus to southeastern North Carolina.

PROGRAMS AND SERVICES TO PUBLIC ORGANIZATIONS

The university is vitally interested in assisting public organizations (municipal, county, state, and federal) with their training and educational programs. A variety of continuing education activities including credit courses, noncredit short courses, workshops, conferences, and seminars are offered to public organizations.

PROGRAMS AND SERVICE TO SCHOOL SYSTEMS

The university is prepared to assist school systems with their programs for the professional improvement of teachers. Courses

can be designed to meet certification renewal requirements and to provide general training for teachers and administrators.

Continuing education activities may include courses or training in all of the academic disciplines offered at the university. Many activities can be designed to meet the needs of a specific school or school system.

PROGRAMS AND SERVICE TO THE GENERAL PUBLIC

The Office of Continuing Education arranges a full schedule of community interest programs during each academic year simply to help people learn something new and to contribute to personal enrichment.

These activities include speakers, discussion groups, short courses, workshops, and conferences. The topics range from local problems to international affairs.

The Office of Continuing Education coordinates the "Great Decisions" program during February and March of each year. This program, sponsored and developed by the American Foreign Policy Association, is a discussion group activity which includes eight topics of international interest. It is a non-credit activity open to the public.

UNIVERSITY EXTENSION PROGRAM

In an effort to reach beyond the bounds of the campus, the university offers, through the Office of Continuing Education, a number of freshman and sophomore level courses on the campuses of three regional technical institutes. The institutes involved in this program are James Sprunt Institute in Kenansville, Bladen Technical Institute in Dublin, and Sampson Technical Institute in Clinton, North Carolina.

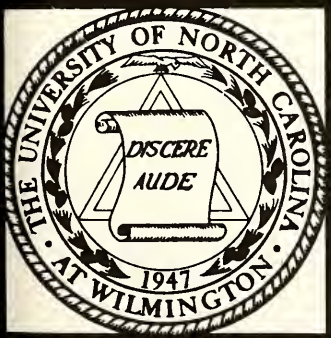
The institutes are responsible for recruiting and enrolling students in this program. Only those students who are high school graduates or the equivalent may be enrolled for academic credit in the extension program of the university.

All requests for transcripts for university extension courses should be forwarded to the Registrar of the University of North Carolina at Wilmington.

Students without previous college credit may be admitted to the university upon completion of 12 semester hours of credit if they have maintained a "C" average. Students with previous college credit must have a "C" average on all hours attempted in order to be admitted to the university.

Further information concerning the Continuing Education Program may be obtained by contacting the director.

DESCRIPTION OF COURSES



DESCRIPTION OF COURSES

This section contains a listing of all the courses offered by each academic department. Not all of the courses listed are necessarily offered within a single academic year. For a listing of the courses actually offered during a given semester, see the course schedule which is printed for that semester. This schedule lists the time, place and instructor for each course offered during the semester. Copies may be obtained in the Office of the Registrar.

A hyphen connecting courses (e.g. 201-202) indicates that the first course in the sequence must be satisfactorily completed prior to registration in the second course of the sequence. When course numbers are separated by a comma (e.g. 201, 202) the first course is not necessarily prerequisite to those following. The semester hours credit for each course is indicated in parentheses following the course title.

ACCOUNTING

(See Business and Economics)

ANTHROPOLOGY

(See Sociology and Anthropology)

ARABIC

(See Modern Languages)

ART

Mr. Howell, *chairman*. Miss Conner, Mr. Goins.
Estimated additional cost of supplies for some art laboratory courses will be $10.00.

105 Painting Techniques (1)
Painting in various media: oil, acrylic, watercolor, etc. Two hours each week. May be repeated indefinitely. Accumulative credit limited to two hours.

106 Three-Dimensional Form Techniques (1)
Three-dimensional form with emphasis on sculpture and ceramics. Two hours each week. May be repeated indefinitely. Accumulative credit limited to two hours.

107 Drawing Techniques (1)
Drawing in various media: charcoal, ink, polymer, etc. Two hours each week. May be repeated indefinitely. Accumulative credit limited to two hours.

111-112 Beginning Life Drawing (3-3)
Drawing from the model in various media: pencil, charcoal, ink, etc. Six studio hours each week.

141-142 Two-Dimensional Design (2-2)
Fundamentals of design. One lecture and four studio hours each week.

143-144 Three-Dimensional Design (2-2)
Study of three-dimensional form to give the general art student a feeling for plastic awareness. One lecture and four studio hours each week.

201,202,203 Art History and Appreciation (3,3,3)
Survey of the general periods of art from prehistoric to modern. 201: Ancient World. 202: Middle Ages and Renaissance. 203: Modern World. Three hours each week.

208 Technical Skills (2)
Prerequisite: At least two different studio courses. Basic skills related to the arts: framing, matting, crating, etc. Two studio hours each week.

211-212 Intermediate Life Drawing (3-3)
Prerequisite: Art 112 or permission of instructor. Drawing from the model in various media: pencil, charcoal, ink, etc. Six studio hours each week.

221-222 Beginning Ceramics (3-3)
Introduction to three-dimensional form and design in the manipulation of clays and glazes; basic techniques and approaches. One lecture and six studio hours each week.

231-232 Beginning Printmaking (3-3)
Prerequisite: Art 141 or 111 or permission of instructor. Problems in relief and intaglio using a variety of materials. One lecture and six studio hours each week.

241-242 Beginning Painting (3-3)
Prerequisite: Art 142 or consent of instructor. Emphasis on technique and expression. One lecture and six studio hours each week.

251-252 Beginning Sculpture (3-3)
Prerequisite: Art 144 or consent of instructor. Three-dimensional form in clay and plaster; basics of modeling and casting abstract and life forms. One lecture and six studio hours each week.

261-262 Beginning Crafts (3-3)
Prerequisite: Art 141 or consent of instructor. Beginning study of materials and techniques used in various craft forms. Work in weaving, batik, macrame and jewelry. One lecture and six studio hours each week.

281-282 Color (3-3)
Prerequisite: Art 142 or consent of instructor. Acrylic, oil, watercolor, and gouache; still life, landscape, and figure with emphasis on line, tone and design. One lecture and six studio hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

306 Italian Renaissance Art History (3)
Study of the development of art in Italy, 1000-1500 A.D. Emphasis on painting. Sculpture and architecture included as related to Renaissance concepts of thought.

311-312 Advanced Life Drawing (3-3)
Prerequisite: Art 212 or consent of instructor. Drawing in various media: conté, charcoal, ink, etc. Six studio hours each week.

321-322 Intermediate Ceramics (3-3)
Prerequisite: Art 222 or consent of instructor. Continuation of three-dimensional forms and design in manipulation of clays and glazes; basics of kiln construction and chemistry of glazes. One lecture and six studio hours each week.

331-332 Intermediate Printmaking (3-3)
Prerequisite: Art 232 or consent of instructor. Further exploration of printmaking techniques in relief, intaglio, silk screen. One lecture and six studio hours each week.

341-342 Intermediate Painting (3-3)
Prerequisite: Art 242 or consent of instructor. Further exploration of technique and expression. One lecture and six studio hours each week.

351-352 Intermediate Sculpture (3-3)
Prerequisite: Art 252 or consent of instructor. Three-dimensional form in plaster, ceramics and metals. One lecture and six studio hours each week.

361-362 Intermediate Crafts (3-3)
Prerequisite: Art 262 or consent of instructor. Further exploration of materials and techniques used in various craft forms. One lecture and six studio hours each week.

385 Art in the Elementary School (3)
Appreciation of art designed for elementary teachers, including studio work and art educational theory. One lecture and three studio hours each week.

411-412 Advanced Drawing (3-3)
Prerequisite: Art 312 or consent of instructor. Drawing with a variety of techniques and media. Six studio hours each week.

421-422 Advanced Ceramics (3-3)
Prerequisite: Art 322 or consent of the instructor. Further experience in three-dimensional form and design and emphasis on kiln construction and theory; physical and chemical properties of clays and glazes including the empirical method of glaze calculation. One lecture and six studio hours each week.

431-432 Advanced Printmaking (3-3)
Prerequisite: 332 or consent of instructor. Further exploration of printmaking techniques in relief, intaglio, silk screen, lithography and collograph. One lecture and six studio hours each week.

441-442 Advanced Painting (3-3)
Prerequisite: Art 342 or consent of instructor. Emphasis on techniques and expression. One lecture and six studio hours each week.

451-452 Advanced Sculpture (3-3)
Prerequisite: Art 353 or consent of instructor. Continuation of study of form with emphasis on casting and welding of metals. One lecture and six studio hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

BIOLOGY

Dr. Sieren, *chairman.* Mr. F. Allen, Dr. Biggs, Mr. Chapman, Mr. Cockerham, Mr. Davis, Mr. Dermid, Dr. Fugler, Dr. Hosier, Dr. Kapraun, Dr. Lundeen, Dr. McCrary, Dr. Merritt, Dr. Parnell, Mrs. Pittman, Dr. Plyler, Dr. Roye.

105 Concepts of Modern Biology (4)
An introduction to the diversity of life and the unifying principles that bring order to that diversity. Some of the concepts discussed include the nature of life, energy relationships, reproduction and development, inheritance, evolution oí life, behavior of animals, and ecology and the environment. Multi-media instructional materials are used. A Student Learning Center provides opportunity for tutorial and audio-vidual supplementary instruction. Three lecture and three laboratory/discussion hours each week.

205 Plant Biology (4)
Prerequisite: Biology 105. Classification, morphology, physiology, and ecology of seed plants with introductory survey of algae, fungi, bryophytes, and lower vascular plants. Three lecture and three laboratory hours each week.

206 Animal Biology (4)
Prerequisite: Biology 105. Classification, morphology, physiology, and ecology of animals. Three lecture and three laboratory hours each week.

215 (Physical Education 215) Anatomy and Physiology (4)
Prerequisite: Credit in Biology or consent of instructor. Brief introduction to major biological principles as applied to study of human anatomy and physiology. Three lecture and three laboratory hours each week.

225 Bacteriology (3)
Prerequisite: Credit in Biology. Open only to nursing students. Bacteria and related organisms; laboratory work in common bacteriological techniques. Two lecture and three laboratory hours each week.

235 Genetics in Human Affairs (3)
Prerequisite: Biology 105. A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing an understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of the department chairman.

315 Comparative Vertebrate Anatomy (4)
Prerequisite: Biology 206. Comparative morphology and phylogenetic interrelationships of vertebrate animals; representative organisms dissected in laboratory. Three lecture and three laboratory hours each week.

316 Vertebrate Embryology (4)
Prerequisite: Biology 206. Fundamental principles of embryonic development of vertebrate animals; frog, pig and chick emphasized. Three lecture and three laboratory hours each week.

335 Genetics (3)
Prerequisite: Biology 105. Principles of Mendelian heredity, linkage, mutation, population genetics, and gene action. Three hours each week.

335-51 Genetics Laboratory (1)
Prerequisite: Biology 105; *corequisite:* Biology 335. Demonstration of basic heredity principles through study of *Drosophila* and other genetic systems. Three laboratory hours each week.

345 Animal Physiology (4)
Prerequisite: Biology 206 and Chemistry 102. Comparative study of physiological processes in different organisms approached through study of tissues, organs, and systems. Three lecture and three laboratory hours each week.

355 Plant Physiology (4)
Prerequisite: Biology 205. A study of the role of the environment in plant physiological processes. Topics include energy fixation and utilization, physiological stress, physiological adaptation, and plant interactions. Three lecture and three laboratory hours each week.

356 Vertebrate Natural History (4)
Prerequisite: Biology 206. Identification, classification, and life histories of common vertebrate animals of eastern North Carolina with emphasis on field work. Two lecture and four laboratory hours each week.

362 Marine Biology (4)
Prerequisite: Biology 205 and 206. Marine biota and their relationship to the oceanic environment. Two lecture and four laboratory hours each week.

365 Invertebrate Zoology (4)
Prerequisite: Biology 206. Invertebrate organisms with emphasis on structure, function, taxonomy, phylogeny, and life histories of marine organisms. Two lecture and four laboratory hours each week.

370 Tropical Biology (3)
Prerequisite: Biology 205 and 206 or consent of instructor. Study of the geography, climate, plant communities, diseases, and geographic distribution and ecology of the major animal taxa of the neo- and paleotropics. Required of all students enrolling in Field Studies in Tropical Biology. Three lecture hours each week.

375 Plant Morphology (4)
Prerequisite: Biology 205. Morphological survey of algae, fungi, bryophytes, lower vascular plants, and seed plants with emphasis on life histories, classification, and identification. Three lecture and three laboratory hours each week.

395 Methods of Biological Research (2)
Prerequisite: Biology 205 or 206 and one course in Mathematics (Mathematics 111 is recommended.) An introduction to the scientific method, hypothesis construction, design of experiments, data gathering techniques, and data analysis as it pertains to the biological sciences. The use of the computer as a tool in Biology will be practiced. Two hours each week.

425 Microbiology (4)
Prerequisite: Biology 205 or 206. Nonpathogenic and pathogenic organ-

isms; microscopic study; culture and staining methods. Two lecture and four laboratory hours each week.

445 Cell Physiology (4)
Prerequisite: Biology 205, 206, and Chemistry 312. Chemical and physical properties of cells with laboratory emphasis on cellular metabolism. Two lecture and three laboratory hours each week.

446 Phycology (4)
Prerequisite: Biology 205. Taxonomy, morphology, physiology, and ecology of algae. Three lecture and three laboratory hours each week.

455 Ecology (4)
Prerequisite: Biology 205 and 206. Ecological principles pertaining to both plants and animals. Two lecture and four laboratory hours each week.

456 Ornithology (4)
Prerequisite: Biology 206. An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

465 Biochemistry (3)
Prerequisite: Chemistry 312. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; bio-energetics, regulatory mechanisms. Three hours each week.

466 Marine Ecology (4)
Prerequisite: Biology 455. Advanced concepts involving the ecology of estuarine and marine environments. Major emphasis will be placed on the study of selected topics through team teaching and individual student research. Two lecture and four laboratory hours each week.

470 Ecology of Human Populations (3)
Prerequisite: Biology 345 and 455 or 466. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles. Three hours each week.

475 Plant Taxonomy (4)
Prerequisite: Biology 205. Identification, classification, and phylogeny of vascular plants with emphasis on flora of eastern North Carolina. Field trips. Two lecture and five laboratory hours each week.

485 Special Topics in Advanced Biology (4-6)
Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

1. Marine Phycology. *Prerequisite:* Biology 205. Taxonomy, morphology, physiology, and ecology of marine algae.
2. Marine Invertebrate Zoology. *Prerequisite:* Biology 206. A field-oriented course which utilizes local marine fauna to study the structure, function, ecology, and taxonomy of the major invertebrate groups.
3. Field Studies in Tropical Biology. *Prerequisite:* Biology 370 and/or consent of instructor. Spanish 105 is recommended. A research-oriented field course offered in tropical areas of Latin America; emphasis is on distribution, taxonomy, and ecology of aquatic and terrestrial organisms.

491 Directed Individual Study (1-6)
Prerequisite: Biology 395, junior or senior standing, consent of instructor, and consent of department chairman.

495 Seminar (1)
Discussion of selected topics drawn from current literature. May be repeated for one additional hour credit. One hour each week.

499 Honors Work in Biology (2-3)
Prerequisite: Second semester junior or senior standing. Independent study for honors students.

BUSINESS AND ECONOMICS

Dr. Kaylor, *chairman*. Mr. Anderson, Mr. Appleton, Mr. Burke, Mr. Clark, Mr. Cooper, Mr. Dunn, Dr. Farrell, Dr. Hall, Dr. Hill, Mrs. Knox, Dr. West.

ACCOUNTING

201-202 Principles of Accounting (3-3)
Prerequisite: Mathematics 121 or consent of instructor. Preparation of financial records, working papers, statements of financial position, income statements, and statements of changes in financial position. ACG 201 emphasizes financial accounting; ACG 202 emphasizes managerial uses of accounting.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

301-302 Intermediate Accounting (3-3)
Prerequisite: Accounting 202. Analysis of the theory, concepts, principles and procedures underlying the preparation of financial statements for external reporting in light of current issues and practices.

305 Cost Accounting (3)
Prerequisite: Accounting 202. Costs for planning and control, including the role of the accountant in the organization; cost behavior and volume-profit relationships; responsibility accounting; standard costs; flexible budgets; cost structures for control and motivation; and relevant costs for nonroutine decisions.

306 Accounting for Management and Control (3)
Prerequisite: Accounting 202. The study of how accounting data can be analyzed, interpreted, and used by management in planning and controlling business activities. Emphasis is on the analysis of accounting data rather than the collecting and recording functions. Not open to students concentrating in accounting.

308 Income Tax Accounting (3)
Prerequisite: Accounting 202. Principles of federal and state income taxes as related to individuals, partnerships, and corporations; the history and development of taxation, and special income tax problems.

401 Accounting for Business Combinations (3)
Prerequisite: Accounting 301-302. A study of accounting problems in mergers and consolidations, parent-subsidiary interrelationships, branch and foreign operations. Emphasis on consolidated financial statements.

402 Specialized Accounting Problems (3)
Prerequisite: Accounting 301-302. The application of accounting theory to specialized problems, including partnerships, fiduciary relationships, bankruptcy and reorganization, liquidation, governmental entities and other non-profit service entities.

403 Administrative Accounting and Control (3)
Prerequisite: Accounting 305 or Accounting 306. The controllership function and analytical methods to serve the information needs of decision making and control; advanced topics in cost accounting, forecasting, budget design and preparation, and responsibility accounting.

407 Auditing (3)
Prerequisite: Accounting 301-302. Objectives, standards and procedures involved in examining and reporting on financial statements of business organizations by independent auditors in light of ethical and legal obligations.

408 Contemporary Accounting Theory (3)
Prerequisite: Accounting 301-302 and consent of instructor. Analysis and evaluation of current accounting thought relating to nature, measurement, and reporting of business income and financial condition.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Accounting (2-3)
Prerequisite: Senior standing. Independent work for honors students.

BUSINESS ADMINISTRATION

235 Personal Finance (3)
Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings, and investments. Recommended elective for non-business majors.

206 Computer Applications in Business (3)
Prerequisite: Mathematics 121 and Accounting 201. The vocabulary necessary to communicate with the computer, including an introduction to programming using the BASIC and FORTRAN languages. Computer applications in the fields of accounting, economics, and other business disciplines.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

301 (Economics 301) Statistical Analysis for Business and Economics (3)
Prerequisite: Mathematics 121 and Economics 251, 252. Classification and presentation of business and economic data, statistical inference including estimation and hypothesis testing procedures, Bayesian inference, correlation and regression analysis, time series and index numbers.

302 (Economics 302) Operations Research (3)
Prerequisite: Mathematics 121-122 and Mathematics 265 or Business 301. Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control, game theory, queuing, and Markov chains.

310 Business Communications (3)
Prerequisite: English 102, Accounting 202 and Economics 251. Fundamentals of effective business communication with emphasis on writing business letters, papers, and reports.

335 Business Finance (3)
Prerequisite: Accounting 306, Economics 251, 252. An introduction to the finance function of business enterprises and to the analytical techniques used in making investment and financing decisions. Brief review of financial analysis, planning and control. Emphasis is on decisions involving working capital, long-term assets, long-term financing, and financial leverage.

345 Marketing (3)
Prerequisite: Accounting 202 and Economics 251. Basic functions, institutions, and problems involved in the distribution of goods and services. Emphasis is upon integrating the managerial approach with the behavioral concepts of the marketing process.

346 Retailing (3)
Prerequisite: Accounting 202 and Economics 251, 252. Principles and methods of retailing in relation to its economic environment, store location, layout, organization, operation, merchandising, purchasing, pricing, sales promotion and managerial control.

347 Advertising Management (3)
Prerequisite: Business 345 or consent of instructor. An interdisciplinary approach to the ethical, social and economic roles of advertising. Emphasis is upon the why in copywriting, illustration, layout, media selection, budgeting, and evaluation of advertising planning and effectiveness.

348 Sales and Sales Management (3)
Prerequisite: Business 345 or consent of instructor. Planning, organizing, directing, and controlling sales operations. Emphasis is on the functions and problems of the sales executive.

355 Principles of Management (3)
Prerequisite: Accounting 202 and Economics 251, 252. Managerial principles and practices universally applicable in the planning, organizing, staffing, motivating, and controlling of human and economic resources. The historical development of management thought is an integral part of the course.

356 Personnel Management (3)
Prerequisite: Business 355 or consent of instructor. An examination and evaluation of the concepts and principles used by the business and nonbusiness organization in human resource management. The course is designed to provide the broad understanding needed by supervisors and executives rather than personnel managers.

357 Operations Management (3)
Prerequisite: Business 302 or consent of instructor. An introduction to the operations function of product and service enterprises and to the concepts of modern analytical techniques used to design and control quantity, quality, and cost of output from the productive activities. Applications to non-manufacturing organizations are considered but emphasis is on the manufacturing enterprise.

358 Organizational Behavior (3)
Prerequisite: Business 355 or consent of instructor. An evaluation of the behavioral science concepts and principles applicable to organizations. The objective is to broaden the student's understanding of human behavior in the work place and to explain how such behavior can be channeled toward desirable goals for both the individual and the organization.

360 Real Estate (3)
Prerequisite: Consent of instructor. Principles of property management and practices relating to appraisal, sales, ownership, control, financing, and transfer of real property.

365 Risk Management and Insurance (3)
An introduction to the risk management function and to the basic methods used to handle risks facing the business enterprise, families, and individuals. Emphasis is on the insurance method of handling risk with study of the concepts underlying insurance, the fundamentals of insurance contracts, and a broad selection of policy coverages in the property and liability, and life and health fields.

370 Transportation (3)
Introductory analysis of the five domestic modes of the transportation industry. The basic theoretical principles of transportation economics and carrier-shipper interactivity are evaluated together with the application of such principles to relevant market conditions. Also synthesized are carriers', shippers', and labor's efforts to improve the industry's productivity.

435 Investments (3)
Prerequisite: Business 335 or consent of instructor. An examination of the major outlets for individual investment funds including corporate and U. S. government securities. Major emphasis is placed on common stock analysis and evaluation and portfolio management. In addition, the securities market as an institution is examined along with the various theories of market performance.

436 Financial Management (3)
Prerequisite: Business 335. Financial analysis and decision making in the modern business organization. Theoretical foundations of financial decision making are emphasized including both working capital and fixed capital requirements.

445 Marketing Management (3)
Prerequisite: Business 345 and senior standing. Concepts in demand analysis, coordinating marketing action, determining and evaluating policies and procedures, use and evaluation of research.

446 (Economics 446) International Trade and Finance (3)
Prerequisite: Accounting 202, Economics 251, 252, or consent of instructor. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates, and balance of payments problems.

449 Marketing Research (3)
Prerequisite: Business 345 and Business 301 or Mathematics 265. Collection, interpretation, and use of data in the solution of marketing problems; scope and purposes of market research; sources of data; sampling, planning and utilization of field surveys.

453 Management of Small Business (3)
Prerequisite: Business 335 and Business 355 or consent of instructor. A study of the special problems, analysis, and decision making involved in the development and management of small business. Emphasis on the professional small businesss manager and entrepreneur.

455 Business Policy (3)
Prerequisite: Business 302, 310, 335, 345, 355, 357 and senior standing.

Capstone course integrating the functions and policies of business decision making at the policy making level of management. Case study method is used.

461-462 Business Law (3-3)
Prerequisite: Junior or senior standing or consent of instructor. Origin, nature, and classification of the law; state and national court systems; legal environment of business; contracts and negotiable instruments; agency; business organization; sales, warranties and security interests; personal and real property; estates and wills; and environmental law.

470 Transportation Management (3)
Prerequisite: Business 355 or consent of instructor. An overview of the relationship of management principles and concepts to the transportation industry (five modes) as the major component of the seven primary physical distribution activities (decision centers). Both domestic and international aspects are included.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar (3)
Prerequisite: Senior standing and consent of instructor. Special topics in management and marketing not regularly dealt with in other courses.

499 Honors Work (2-3)
Prerequisite: Senior standing. Independent work for honors students.

ECONOMICS

105 Survey of Economics (3)
An introduction to economic principles for non-business and non-economics majors. Current issue analysis rather than theoretical analysis is utilized to present and show the relevance of economic principles.

251 Principles of Economics (Micro) (3)
Prerequisite: Mathematics 121-122. Analysis of decision-making processes and economic equilibrium for the individual firm and consumer at an introductory level.

252 Principles of Economics (Macro) (3)
Prerequisite: Mathematics 121-122. Aggregate economic analysis examining the effects of fiscal and monetary policy upon aggregate employment, income, and prices at an introductory level.

301 (Business 301) Statistical Analysis for Business and Economics (3)
Prerequisite: Mathematics 121 and Economics 251, 252. Classification and presentation of business and economic data, statistical inference including estimation and hypothesis testing procedures, Bayesian inference, correlation and regression analysis, time series and index numbers.

302 (Business 302) Operations Research (3)
Prerequisite: Mathematics 121-122, Mathematics 265 or Economics 301. Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control, game theory, queuing, and Markov chains.

305 (Environmental Studies 305) Environmental Economics (3)
Prerequisite: Economics 105, 251, or 252 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives.

315 Intermediate Price Theory (3)
Prerequisite: Economics 251, 252. A theoretical analysis of individual consumer and firm behavior and general equilibrium.

316 National Income Analysis (3)
Prerequisite: Economics 251, 252. A theoretical analysis of the determination of aggregate income, aggregate employment, and the average price level and the role of monetary and fiscal policy in the determination of such.

327 Money and Banking (3)
Prerequisite: Economics 251, 252. A theoretical and empirical analysis of the effects of money on aggregate income and employment and the average price level. Analysis of the tools and policy of the Federal Reserve. An overview of banks and other financial intermediaries.

336 Financial Institutions (3)
Prerequisite: Business 335 or consent of instructor. An examination of the workings of the money and capital markets including the manner in which financial institutions and markets play a role in the transmission of macro-financial policy actions to various sectors of the economy. The impact of these macro variables on the internal financial manager.

338 Public Finance (3)
Prerequisite: Consent of instructor. Study of state, local, and federal government revenues and expenditures: (1) Facts of public revenues and expenditures; (2) Theory of public sector-social goods, social balance, and fiscal neutrality; (3) Methods of achieving efficiency in government—Benefit-cost analysis, Program budgeting (PPB), and pricing of government services.

401 History of Economic Thought (3)
Prerequisite: Economics 315, 316 or consent of instructor. Scientific economic thought and philosophy from ancient to modern times. Open-ended as to dates of time period covered. Primary emphasis is on topics as opposed to schools of thought.

420 Managerial Economics (3)
Prerequisite: Economics 315 and Economics 301 or Mathematics 265. Economic theory of the firm, mathematical models of the firm; the internal decision-making process.

426 Comparative Economic Systems (3)
Prerequisite: Consent of instructor. Analysis of economic systems operating under capitalism, socialism, communism, and fascism; institutions and organization of production and government; decision-making; distribution of income; problems of developing nations.

427 Labor Economics (3)
Prerequisite: Economics 251, 252. An analysis of the demand for and the supply of labor at the individual and the aggregate level, labor unions and collective bargaining.

428 Regional Growth and Development (3)
Prerequisite: Economics 251, 252. Theories of subnational or regional economic growth. Measures of regional economic growth. Policies to alleviate problems resulting from disparate rates of regional economic growth.

446 (Business 446) International Trade and Finance (3)
Prerequisite: Accounting 202, Economics 251, 252 or consent of instructor. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates and balance of payments problems.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar in Economics (3)
Prerequisite: Economics 315, 316 and consent of instructor. An examination of current problems in economics organized on a discussion-research basis. The content of the course will vary as changing conditions require the use of new approaches to deal with current issues.

499 Honors Work (2-3)
Prerequisite: Senior standing. Independent work for honors students.

CHEMISTRY

Dr. Levy, *chairman.* Dr. L. Adcock, Dr. Cahill, Dr. Deloach, Dr. Hart, Dr. Hornack, Dr. Martin, Dr. Nance.

101-102 General Chemistry (3-3)
Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Normally taken concurrently with General Chemistry Laboratory (101-51-102-51).

101-51, 102-51 General Chemistry Laboratory (1-1)
Prerequisite or corequisite: Chemistry 101-102. Introduction to techniques and equipment in the chemistry laboratory; interpretation of experimental results. Quantitative and qualitative analysis included. Three laboratory hours each week.

105 Chemistry and Man (4)
Introduction to some basic principles of chemistry with particular attention to the significance of chemistry to modern society. Topics of discussion will include environmental pollution, chemical energy sources, biological chemistry, and the chemistry of consumer products. Three lecture and three laboratory hours each week. May not be taken for credit after Chemistry 101 has been passed.

107 Physical Science for Nurses (4)
A one-semester course designed for nursing students. Three lecture and three laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

311-312 Organic Chemistry (4-4)
Prerequisite: Chemistry 102. Introduction to the chemistry of carbon com-

pounds, including structural theory, synthesis, and reaction mechanisms. Three lecture and three laboratory hours each week.

311-91,312-91 Advanced Techniques of Organic Chemistry (1-1)
Additional organic laboratory to accompany chemistry 311 and 312. Theory and practice of chromatographic methods of separation and spectroscopic methods of identification. Three laboratory hours each week.

321 Physical Chemistry (3)
Prerequisite: Chemistry 102, Physics 202, Mathematics 213. Chemical thermodynamics, reaction kinetics, and introduction to statistical mechanics. Three hours each week.

322 Physical Chemistry (3)
Prerequisite: Chemistry 102, Physics 202, Mathematics 213. Introduction to quantum mechanics with applications to the structure of atoms and molecules. Spectroscopy, statistical mechanics, and elementary nuclear and solid state theory. Three hours each week.

321-51,322-51 Physical Chemistry Laboratory (1-1)
Normally taken concurrently with Chemistry 321 and 322, respectively Three laboratory hours each week.

325 Brief Physical Chemistry (4)
Prerequisite: Chemistry 102 and one sequence in Physics. An abbreviated course in fundamentals of physical chemistry. Three lecture and two laboratory hours each week. May not be taken for credit after 321 has been passed.

333 (Environmental Studies 333) Analytical Chemistry in Environmental Problems (4)
Prerequisite: Chemistry 102. The theory and practice of (a) sampling and sample preparation (air, water, etc.), (b) selective methods of quantitative gravimetric and volumetric analysis, (c) instrumental techniques, and (d) monitoring systems. Two lecture and four laboratory hours each week.

335 Quantitative Analysis (4)
Prerequisite: Chemistry 102. Gravimetric and volumetric techniques, with some introduction to instrumental analysis. Two lecture and four laboratory hours each week.

355 History and Literature of Chemistry (1)
Prerequisite: Junior standing. Introduction to chemical literature and sources of information and to the historical development of chemistry. One lecture each week.

415 Advanced Organic Chemistry (3)
Prerequisite: Chemistry 312. Theoretical organic chemistry with emphasis on reaction mechanisms and special synthetic methods. Three lecture and three laboratory hours each week.

435 Advanced Analytical Chemistry (4)
Prerequisite: Chemistry 333 or 335 and 321-322. Theory and applications of modern analytical instrumentation and techniques. Two lecture and four laboratory hours each week.

445 Inorganic Chemistry (3)
Prerequisite: Chemistry 321-322. Advanced descriptive and theoretical inorganic chemistry. Three hours each week.

446 Advanced Inorganic Chemistry (3)
Prerequisite: Chemistry 445. Advanced topics in theoretical inorganic chemistry. Three hours each week.

465 Biochemistry (3)
Prerequisite: Chemistry 312. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; bioenergetics; regulatory mechanisms. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar (1)
Prerequisite: Senior standing. Discussion of selected topics. One hour each week.

499 Honors Work in Chemistry (2-3)
Prerequisite: Second semester junior or senior standing. Independent study for honors students.

COMPUTER SCIENCE

(See Mathematical Sciences)

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA AND SPEECH

Dr. Rogers, *chairman.* Mrs. Fitzgibbon, Mr. Knowles, Mr. Swink, Mrs. Welch.

115 Fundamentals of Speech (3)
Principles and basic skills in speaking and listening; classroom exercise and discussion. Three hours each week.

116 Theory of Speech Communication (3)
Prerequisite: Drama and Speech 115 or consent of instructor. Orientation in the areas of speech. Analysis of content and delivery factors used in persuasive communication. Three hours each week.

170 Intercollegiate Debate (1)
Open to all students regardless of standing who participate in intercollegiate debate for up to eight hours of academic credit. One hour each week.

201 Stagecraft and Shop (2)
Basic principles of scenic materials and equipment. Use of materials, methods of construction and handling of scenery and properties. One lecture and three laboratory hours per week plus participation in the University Theatre productions required.

202 Stagecraft and Shop (2)
Prerequisite: 201 or consent of instructor. Practical training in workshop organization and technical production plus basic principles of theatrical graphics. One lecture and three laboratory hours each week plus participation in University Theatre productions required.

205 Stage Make-up (2)
Theory and practice in the application of make-up for theatrical performances. Four laboratory hours each week.

215 Oral Interpretation (3)
Development of proficiency in all types of interpretation. Three hours each week.

221, 222 History and Appreciation of the Theatre (3,3)
Definitions and functions of the theatre in relationship to the cultures which produce it. 221: Greek Golden Age to Romantic Period. 222: Ibsen to the present. Three hours each week.

225 History and Appreciation of Film (3)
A survey through film of the development of motion picture from its primitive beginnings to the advent of sound film. A visual illustration of the basic aesthetic principles controlling film as art.

231 Acting I (4)
Prerequisite: Permission of instructor. Use of body and voice as instruments of expression; development of acting exercise structure with mind and breathing control practiced. Three class hours and 2½ laboratory hours each week.

232 Acting II (4)
Prerequisite: Acting I and/or permission of instructor. Continuing and expanding work on the use of body and voice. Further development of acting exercise structure with emphasis on improviation and one scene study. Three class hours and 2½ laboratory hours each week.

270 Parliamentary Procedure (1)
Principles and rules governing deliberative assemblies. One hour each week.

275 The Art of Persuasive Speech (3)
Prerequisite: Drama and Speech 116 or consent of instructor. Power of speech as a tool to control thought processes of others in both negative and positive ways. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Scenic Design (3)
Prerequisite: Drama and Speech 202 or consent of instructor. Play interpretation through the scenic elements. Problems in theatre graphics, technique applications, script interpretation, scenic design and style. Two class hours and two laboratory hours each week.

306 Stage Lighting (3)
Prerequisite: Drama and Speech 201 and/or 202 or consent of instructor. Basic techniques of theatrical lighting. Includes fundaments of electricity, lighting equipment, and the use of color. Two class hours and two laboratory hours each week.

307 Theatre Production (3)
Lectures and practical experience in all phases of production: staging, management, publicity, public relations, properties, house management, costumes, special effects and sound included. Deals with the responsibilities and actual duties of all personnel. Three lecture hours each week.

321-322 Theatre History (3-3)
321: Greek beginning to the Romantic Period. 322: 17th century through 19th century. Three hours each week.

325 Drama and Social Change (3)
Study of the patterns and results of social change on universal life as documented and portrayed in drama. Three hours each week.

333 Acting III (1-4)
Prerequisite: Acting I and II and/or consent of instructor. Scene study. A contractual course with individual student commitment concerning the number of scene studies to be attempted. Can be taken for up to four hours accumulative maximum.

345 Playwriting I (3)
Analysis of one-act plays and their construction; the writing of an original one-act play required. Three hours each week.

355 Directing I (3)
Fundamental principles of directing with emphasis on one-act productions. Three hours each week.

375 Group Discussion (3)
Prerequisite: Drama and Speech 115, 116, or consent of instructor. The study of and practice in oral group methodologies, including panel, forum, and symposium speaking. Three hours each week.

376 Debate (3)
Prerequisite: Drama and Speech 115, 170, or consent of instructor. Principles of argumentation and style in their application to formal debate; practice in conventional debate form on current national intercollegiate debate resolution. Three hours each week.

420 History of Rhetoric and Public Address (3)
A survey of the development of rhetorical principles and style as evidenced by significant historical personalities and the literary genre of public address. Three hours each week.

425 Aesthetics of Film (3)
A study of the various forms and content of film as controlled by the film director. The theoretical aspects of film as a work of art. Two class hours and two laboratory hours each week.

445 Playwriting II (3)
Prerequisite: Drama and Speech 345. Advanced techniques of playwriting with emphasis on the three-act play; production of a three-act play. Three hours each week.

455 Directing II (3)
Prerequisite: Drama and Speech 355. Advanced techniques in the direction of plays for the stage. Three hours each week.

461, 462 Seminar in Dramatic Theory (3,3)
Prerequisite: Senior standing or consent of instructor. Growth and results of dramatic theory on theatre. 461: Aristotle to Romantic Period. 462: Ibsen to the present. Three hours each week.

465 Mass Communications in Society (3)
A seminar encompassing the development of mass communications, the

obligations of the press, radio, and television, the government and the right to know, censorship, invasion of privacy and other effects of mass communications. Three hours each week.

485 Senior Project (3)
Every major must choose a specific area in drama for a senior project. The proposal for planning and executing a public presentation in the chosen area must be submitted to the faculty of the Department of Drama and Speech for approval prior to the semester during which the project will be attempted.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Drama and Speech (2-3)
Prerequisite: Senior standing . Independent study for honors students.

EARTH SCIENCES

Dr. Duncan Randall, *acting chairman.* Mr. Ainsley, Dr. Cleary, Mr. Dempsey, Dr. Thayer, Dr. Young, Dr. Zullo.

230 Earth Science Graphics (3)
Methods of graphic expression related to natural science in general; use of various media; methods of reproducing graphic works; introduction to aerial photography interpretation and basic map use. One lecture and four laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

390 History of Earth Sciences (3)
Prerequisite: Junior standing with a departmental concentration or consent of the staff. Development of scientific thought in the earth sciences; study of the traditional backgrounds to modern research in earth sciences Three hours each week.

490 Research in the Earth Sciences (3)
Prerequisite: Senior standing with a departmental concentration. Research on selected problems in the earth sciences. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar (1)
Prerequisite: Senior standing with a departmental concentration or consent of the staff. Student, faculty and guest seminars on their research, and the philosophy and methodology relating to the earth sciences. May be repeated for one additional hour credit. One hour each week.

499 Honors Work in Earth Sciences (2-3)
Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

ENGINEERING

111 Engineering Graphics (3)
Fundamentals of drafting and use of instruments, lettering, geometric constructions, orthographic projection, auxiliaries, sections, fasteners, dimensioning, freehand sketching; axonemetric, oblique, and perspective views and fundamentals of working drawings. Basic construction and topographic drafting, inking, methods of reproduction; descriptive geometry, graphical solution of spatial point, line and plane problems. One lecture and three laborarory hours each week.

211-212 Plane Surveying (3-3)
Introduction to basic concepts in plane surveying, elementary geodetic surveying, and photogrammetry. Two lecture and three laboratory hours each week.

GEOGRAPHY

135 Introduction to Physical Geography (4)
Maps and map projections and their uses; analysis of the spatial distribution and character of environmental elements, including climate, land forms, vegetation, and soils. Three lecture and two laboratory hours each week.

145 Introduction to Human Geography (3)
Concepts and Methods of human geography with emphasis on current problems related to the spatial distribution of population. Three hours each week.

215 Economic Geography (3)
Economic activities of man, their location and relation to physical and economic conditions of the environment. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

330 Elementary Cartography (3)
Techniques of drafting, map projection, and map design; methods of data representation on maps. One lecture and four laboratory hours each week.

335 Introduction to Physiography (4)
Prerequisite: Geography 135 or Geology 105. Description and classification of land forms; analysis of the geologic, climatic and biologic factors involved in their formation; survey of physiographic provinces of the United States. Three lecture and two laboratory hours each week.

380 Regional Geography of the United States (3)
A regional analysis of physical characteristics, resource base and human geography of the United States. Three hours each week.

385 Regional Geography of Europe (3)
A regional analysis of the physical and cultural features of Europe. Three hours each week.

415 Industrial Geography (3)
Prerequisite: Credit in geography or economics or consent of instructor. Factors underlying the distribution, development and character of major world industrial regions. Three hours each week.

417 Urban Geography (3)
Prerequisite: Credit in a social science or in history or consent of instructor. Analysis of the spatial distribution, growth, function and structure of urban places with emphasis on urban development and problems in the United States. Three hours each week.

430 Climatology (3)
Prerequisite: Geography 135 or consent of instructor. The spatial distribution and character of climates, their relation to other elements of the environment and to human activities. Three hours each week.

432 Biogeography (3)
Prerequisite: Credit in physical geography or in geology or consent of instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their development by physiographic, climatic and evolutionary events of the past. Three hours each week.

455 Political Geography (3)
Prerequisite: Credit in a social science or in history or consent of instructor. Geographic factors in the development of nations and in contemporary national and international affairs. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Geography (2-3)
Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

GEOLOGY

105 Physical Geology (4)
Study of the earth and the moon; constitution of the earth's crust; weathering, erosional and depositional processes; mountain building forces and the earth's internal composition. Three lecture and two laboratory hours each week.

115 Historical Geology (4)
Geologic history of the earth; methods of interpreting the past; ancient environments; development and evolution of life. Required field trips. Three lecture and two laboratory hours each week.

120 (Environmental Studies 120) Environmental Geology (3)
Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

205 Introduction to Oceanography (3)
An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of oceanography; resources of the ocean. Required field trips. Three hours each week.

215 Mineralogy (4)
Prerequisite: Geology 105. Interpretation of the properties of minerals in light of their crystal chemistry and crystal physics; morphology of natural crystals; properties, occurrence, and associations of the common minerals; techniques of mineral identification. Required field trips. Three lecture and two laboratory hours each week.

216 Igneous and Metamorphic Petrology (4)
Prerequisite: Geology 215. Theories of genesis of the major igneous and metamorphic rocks in the light of chemistry, mineralogy, structure and texture, field associations, and experimental data. The relationship between igneous and metamorphic processes and crust-mantle tectonic activity. Required field trips. Three lecture and two laboratory hours each week.

217 Sedimentary Petrology (4)
Prerequisite: Geology 216. Introduction to the identification, classification and origins of sediments and sedimentary rocks. Emphasis is placed on physical processes controlling sedimentation and study of modern and ancient depositional environments. Three lecture and two laboaratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Marine Geology (4)
Prerequisite: Geology 105. Topography, sediments, structure and geologic history of the marine and estuarine environment. Required field trips. Three lecture and three laboratory hours each week.

315 Stratigraphy (4)
Prerequisite: Geology 105 and 115. An introduction to the description, organization and classification of layered rocks. Emphasis is placed on the practical use of stratigraphic principles in elucidating earth history. Three lecture and two laboratory hours each week.

316 Structural Geology (4)
Prerequisite: Geology 216 or consent of instructor. Study of deformation of the earth's crust and interpretation of the structural relationships within rocks reviewed in light of plate tectonics. Required field trips. Three lecture and two laboratory hours each week.

330 Invertebrate Paleontology (4)
Prerequisite: Geology 105 or 115. History of fossil protistans and invertebrates with emphasis on the principles of paleontology, systematics and evolution, and on the use of fossils in stratigraphic correlation. Required field trips. Three lecture and two laboratory hours each week.

335 Introduction to Geomorphology (4)
Prerequisite: Geography 135 or Geology 105. Description and classification of land forms; analysis of geologic, climatic and biologic factors involved in their formation; survey of geomorphic provinces of the United States. Three lecture and two laboratory hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Geology (2-3)
Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

ECONOMICS

(See Business and Economics)

EDUCATION

Dr. Bachner, Dr. Bartolome, Dr. Doss, Dr. Hulon, Mrs. Stike, Dr. Wagoner.

215 Orientation to Teaching (3)
Development of understanding of the teaching profession; observation and participation in cooperating schools. Three lecture and two observation hours each week.

275 Introduction to Exceptional Children (3)
The types of exceptionality including mental retardation, learning disabilities, speech and hearing, visual handicapped, emotional disturbance, physical handicapped and giftedness.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

315 History and Philosophy of Education (3)
Historical and philosophical foundations of education as related to the American school. Three hours each week.

325 School-Community Relations (3)
Required of students concentrating in early childhood education. Methods of improving school-community relations. Three hours each week.

335 The Teaching of Social Studies (3)
Prerequisite: Education 215. Materials and methods for teaching social studies. Three hours each week.

345 Black Literature and Resources for Teachers (3)
A survey of Black literature, including the examination of materials published for classroom use in the public schools and the authors who have made contributions to this field. Three hours each week.

355 Books and Materials for Early Childhood Education (3)
The selection and evaluation of books written for children. Appraisal of illustrations and other instructional media for preschool and primary children; their functions and correlation with the early childhood curriculum will be studied. Three hours each week.

361 The Teaching of Reading (3)
Basic principles and approaches to the teaching of reading; emphasis on the developmental skills taught on the K-3 level. Three hours each week.

365 Teaching of Arithmetic, Grades K-3 (3)
Prerequisite: Education 215. Study of methods and materials for the teaching of arithmetic kindergarten through third grade. Different theories

of thinking and language development and implications for the teaching of arithmetic in the early grades will be studied. Three hours each week.

371 Improvement in Reading Instruction (3)
Prerequisite: Education 215. Development of reading skills and correction of reading deficiencies. Required for certification grades 4-12 (all subject areas). Three hours each week.

385 Introduction to Mental Retardation (3)
A survey course with emphasis on historical aspects, social and family relationships, characteristics, diagnosis, institutionalization and etiology of mental retardation.

386 Introduction to Learning Disabilities (3)
A survey course with emphasis on historical aspects, social and family relationships, characteristics, diagnoses and etiology of learning disabled.

395 Formal and Informal Diagnostic Techniques in Special Education (3)
Various ways and means of evaluation and diagnosing learning difficulties of exceptional children.

415 Teaching Practices and Techniques (3)
Development of techniques of teaching; successful practices in teaching. Three hours each week.

425 Basic Philosophies of Education (3)
Philosophies of education and their influence on the curriculum. Three hours each week.

445 Guidance in the School (3)
Introduction to purposes, processes, organization and materials in counseling programs. Emphasis on nonspecialist viewpoint. Three hours each week.

459 Social Foundations of Education (6)
Corequisite: Education 460. *Prerequisite:* Education 215, 315 and 361 or 371 as appropriate, Psychology 320 or 321 as appropriate, and consent of the Chairman of the Department of Education. Social foundations of education as related to the American school.

460 Theory and Practice of Teaching (9)
Corequisite: Education 459. *Prerequisite:* Education 215, 315, 361 or 371 as appropriate, Psychology 320, 321 as appropriate and consent of the Chairman of the Department of Education. Materials and methods of instruction emphasized in the school setting through a sustained period of teaching with supervision. Areas of certification: 1. Early Childhood Education; 2. English; 3. French; 4. Intermediate Education; 5. Mathematics; 6. Music; 7. Physical Education; 8. Science, or single subjects: Biology, Chemistry, Earth Sciences or Physics; 9. Social Studies, or single subjects: Anthropology, Economics, Geography, History, Political Science, or Sociology; 10. Spanish.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Education (2-3)
Prerequisite: Senior standing. Independent study for honors students.

ENGINEERING

(See Earth Sciences)

ENGLISH

Dr. Corbett, *chairman.* Dr. Collier, Miss Ellis, Mrs. Foushee, Mr. McCall, Mrs. Pearsall, Dr. Powles, Mr. Rosselot, Dr. Stokes, Mr. Tucker.

101-102 Composition (3)
Work in grammar and composition; frequent themes; introduction to types of writing and to poetry, drama, and the novel. Three hours each week.

211, 212 Great British Writers (3,3)
Prerequisite: English 102. 211: Writings before 1800; 212: Writings since 1800. Three hours each week.

219 General Fiction (3)
A thematic approach to fiction for students who enjoy extensive reading of current novels.

245 Journalism (3)
Prerequisite: English 101. Introduction to news writing. Includes news stories, editorials, feature articles and reviews. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

301 Scientific Writing (3)
Prerequisite: English 102. Techniques and structure in scientific writing, emphasizing abstracts, proposals, progress reports, final reports, oral reports, journal articles, and professional papers.

305 Advanced Grammar (3)
Prerequisite: English 102. Systems of grammar; history of the English language. Three hours each week.

306 Advanced Composition (3)
Prerequisite: English 102. Rhetorical principles with emphasis on style; criticism of individual compositions. Three hours each week.

307-308 Creative Writing I, II (3-3)
307: *Prerequisite:* English 102. Instruction in writing fiction, including critical evaluation by instructor and class of student's original works. Three hours each week. 308: *Prerequisite:* Creative Writing I or consent of instructor. Intensive practice in writing fiction or poetry, with emphasis upon developing the individual student's interests and abilities. Three hours each week.

309 Poetry Writing (3)
Prerequisite: English 102. Instruction in writing poetry. Criticism and class discussion of original poems by students. Includes practice in various verse forms as well as developing students' individual abilities.

315 Twentieth Century European Literature (3)
Prerequisite: English 102. Three hours each week.

316 Romantic Literature (3)
Prerequisite: English 102. Major and minor poetry and prose, 1783-

1837. Emphasis on new trends in poetry, the role of the artist, and Romantic critical theory. Three hours each week.

317 Victorian Literature (3)
Prerequisite: English 102. Poetry and prose from 1837-1901. Artistic achievements and literary movements. Intellectual and social problems of the Victorians reflected in their literature. Three hours each week.

320 Early American Literature (3)
Prerequisite: English 102. 17th and 18th century literature. Three hours each week.

321 American Romanticism (3)
Prerequisite: English 102. Literature from 1800-1865. Three hours each week.

322 American Realism (3)
Prerequisite: English 102. Literature from 1865-1900. Three hours each week.

325 Twentieth Century American Fiction (3)
Prerequisite: English 102. Three hours each week.

326 Southern American Literature (3)
Prerequisite: English 102. 19th and 20th century fiction. Three hours each week.

327 North Carolina Literature (3)
Prerequisite: English 102. Interpretive study of writers such as Carl Sandburg, Thomas Wolfe, Randall Jarrell, and Jonathan Williams. Three hours each week.

330 Interpretation of Poetry (3)
Prerequisite: English 102. A critical approach to theme, style, and form. Three hours each week.

335 Major Forms of Drama (3)
Prerequisite: English 102. Representative comedies, tragedies, and other forms from the classical to the modern period. Three hours each week.

336 The Short Story (3)
Prerequisite: English 102. Analysis and interpretation. Three hours each week.

339 Modern British and American Drama (3)
Prerequisite: English 102. A study of representative plays by such dramatists as Shaw, Yeats, O'Casey, Maugham, O'Neill, Hellman, Odets, Williams, Osborne, Pinter, and Miller, with attention to themes and techniques reflecting the social, political, philosophical, and aesthetic concerns of the twentieth century. Three hours each week.

341 English Novel of the Mid-1800's (3)
Prerequisite: English 102. Readings in various types of novels. Three hours each week.

345 Literature for Youthful Readers (3)
Prerequisite: English 102. For students in intermediate education (grades 4-9). Three hours each week.

351 Shakespeare: The Comedies (3)
Prerequisite: English 102. Three hours each week.

352 Shakespeare: The Tragedies (3)
Prerequisite: English 102. Three hours each week.

353 Shakespeare: The Histories (3)
Prerequisite: English 102. Three hours each week.

380 Contemporary Eastern and African Literature (in translation) (3)
Prerequisite: English 102. Representative works of the 20th century primarily since World War II. Three hours each week.

385 Soviet Russian Literature (in translation) (3)
Prerequisite: English 102. Interpretation of Russian literature since the Revolution, including an awareness of the effects of politics on that literature. Includes such writers as Mayakovsky, Bulgakov, Pasternak, Solzhenitsyn, and Yevtushenko.

412 Prose and Poetry of the English Renaissance (3)
Prerequisite: English 102. Development of the literary renaissance. Poetry from Skelton to Jonson, prose from More to Bacon. Three hours each week.

415 The Eighteenth Century (3)
Prerequisite: English 102. Major literary trends of the eighteenth century: neoclassical poetry and satire, the rise of the periodical and the novel, the shift to Romanticism. Includes Restoration poetry and drama. Three hours each week.

425 The English Novel (3)
Prerequisite: English 102. Representative works prior to 1915. Three hours each week.

426 The American Novel (3)
Prerequisite: English 102. Representative works from 1798 to 1900. Three hours each week.

430 Modern Poetry (3)
Prerequisite: English 102. Twentieth century British and American poets. Major trends in poetry from the Imagists to the present. Three hours each week.

455 Chaucer (3)
Prerequisite: English 102. Three hours each week.

456 Milton (3)
Prerequisite: English 102. Three hours each week.

460 World Masterpieces (3)
Prerequisite: English 102. Selections in translation from the world's best literature. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in English (2-3)
Prerequisite: Junior or senior standing. Independent study for honors students.

ENVIRONMENTAL STUDIES

Dr. Plyler, *chairman*. Dr. L. Adcock, Dr. Ahmad, Dr. W. Hall, Dr. H. Hernandez, Dr. Hosier, Dr. Jackson, Mr. Sharp, Dr. Thayer.

106 (Physics 106) Environmental Physics (3)
A study of the environment and the interrelation of its physical systems. Emphasis on energy sources, efficiency of their use and the effect on the environment. Three hours each week.

120 (Geology 120) Environmental Geology (3)
Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

195 Introduction to Environmental Studies (3)
Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on current environmental problems. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of the Environmental Studies Chairman.

305 (Economics 305) Environmental Economics (3)
Prerequisite: Economics 251, 252, or 205 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives. Three hours each week.

316 (Sociology 316) Human Ecology (3)
Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

333 (Chemistry 333) Analytical Chemistry in Environmental Problems (4)
Prerequisite: Chemistry 102. The theory and practice of (a) sampling and sample preparation (air, water, etc.); (b) selective methods of quantitative gravimetric and volumetric analysis; (c) instrumental techniques; and (d) monitoring systems. Two lecture and four laboratory hours each week.

370 (Psychology 370) Environmental Psychology (3)
Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed

on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

490 Senior Project (1-6)
Prerequisite: Senior standing and permission of instructor. A research project and seminar under the supervision of a committee of environmental studies faculty. The project should involve the investigation of a current problem in the Environmental Studies field, and the preparation of a written report on the findings.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of the Environmental Studies Chairman.

495 Seminar in Environmental Studies (3)
Prerequisite: Senior standing. Synthetic approach to the study of Environmental Science. Development of the "holistic" view of the environment, its interrelationship with science, technology, and society in a seminar format.

499 Honors Work in Environmental Studies (2-3)
Prerequisite: Senior standing. Independent study for honors students.

FRENCH

(See Modern Languages)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

GERMAN

(See Modern Languages)

HISTORY

Dr. Crowgey, *chairman.* Mr. W. Allen, Dr. Chambers, Mr. Cooper, Dr. Gay, Mr. McLean, Dr. Moseley, Dr. Usilton, Dr. Watson.

111,112 Western Civilization (3,3)
111: History of civilization to 1650. 112: History of civilization from 1650 to the present. Three hours each week.

231,232 American History (3,3)
231: United States to 1865. 232: United States from 1865 to the present. Three hours each week.

261,262 Afro-American History (3,3)
261: African background through the Civil War. 262: Civil War to the present. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 The Ancient Near East (3)
Prerequisite: History 111-112 or consent of the instructor. An intensive political and cultural study of ancient Babylonian, Egyptian, and other Near Eastern civilizations. Three hours each week.

306 Ancient Greece and Rome (3)
Prerequisite: History 111-112 or consent of the instructor. A study of the civilizations of ancient Greece and Rome with special emphasis on the Greek classical period and the Pax Romana. Three hours each week.

311 Europe, 1815 to 1870 (3)
Prerequisite: History 111-112 or consent of the instructor. Development of Europe between 1815 and 1870, emphasizing industrial revolution, conservatism, liberalism, socialism, and nationalism. Three hours each week.

312 Europe, 1870 to 1918 (3)
Prerequisite: History 111-112 or consent of the instructor. Growing complexities of imperialism, democracy, and socialism in era leading into First World War. Three hours each week.

313 Europe, 1918 to 1945 (3)
Prerequisite: History 111-112 or consent of the instructor. Build-up and collapse of collective security; World War II. Three hours each week.

314 Europe, 1945 to the Present (3)
Prerequisite: History 111-112 or consent of the instructor. Contemporary Europe in the World Community. Three hours each week.

315 Medieval Civilization (3)
Prerequisite: History 111-112 or consent of the instructor. A study of medieval institutions and culture with special emphasis on feudalism, manorialism, and the religious system of the period. Three hours each week.

316 Political History of the Middle Ages (3)
Prerequisite: History 111-112 or consent of the instructor. A study of the political development of medieval Europe from the decline of the Roman Empire in the West to the emergence of the modern period. Three hours each week.

317 The Renaissance and the Reformation (3)
Prerequisite: History 111-112 or consent of the instructor. Development of modern European institutions with emphasis on cultural and religious achievements and on political and economic thought. Three hours each week.

325 Europe and Absolutism (3)
Prerequisite: History 111-112 or consent of the instructor. Europe in the Age of Reason and enlightened despotism, 1648-1789. Three hours each week.

326 The French Revolution and Napoleon (3)
Prerequisite: History 111-112 or consent of the instructor. Europe during French Revolutionary and Napoleonic War periods, 1789-1815. Three hours each week.

335 Diplomatic History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. American diplomatic activities and foreign relations since 1775. Three hours each week.

336 Constitutional History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. Development of the Constitution through decisions of Supreme Court; evolution of federal authority in relation to distribution of governmental power, society and economic life. Three hours each week.

337 Social and Intellectual History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. American life and thought from colonial period to present; special emphasis on institutions and ideas having lasting impact on Americans. Three hours each week.

338 Colonial History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. Formation and growth of American colonies to the conclusion of the French and Indian War (1763). Three hours each week.

339 Economic History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. An historical study of American agriculture, labor, industry, transportation, and banking with emphasis on the relation of the government to the economy. Three hours each week.

351,352 Latin American History (3,3)
Prerequisite: History 111-112 or History 231-232 or consent of the instructor. 351: Origins and development of Latin American colonies and their struggle for independence. 352: Political, economic, and social institutions and problems of Latin American nations from attainment of independence to present. Three hours each week.

400 Historiography (3)
Prerequisite: History 111-112 or History 231-232 or consent of the instructor.

434 The American Revolution, 1763-1789 (3)
Prerequisite: History 231-232 or consent of the instructor. Organization of empire, colonial social structure, events preceding revolution, the War for Independence, politics of the new nation, drafting and ratification of the new Constitution. Three hours each week.

435 The Middle Period (3)
Prerequisite: History 231-232 or consent of the instructor. Era from inauguration of George Washington through Jacksonian democracy to advent of American Civil War. Three hours each week.

436 Twentieth Century America (3)
Prerequisite: History 231-232 or consent of the instructor. The United States from 1900 to the present. Three hours each week.

445 North Carolina, 1524 to 1835 (3)
Prerequisite: History 231-232 or consent of the instructor. Political, economic and social development of North Carolina in the colonial and federal periods to the Constitution of 1835. Three hours each week.

446 North Carolina, 1835 to the Present (3)
Prerequisite: History 231-232 or consent of the instructor. Political, economic and social development of North Carolina in the nineteenth and twentieth centuries. Three hours each week.

447 The Old South (3)
Prerequisite: History 231-232 or consent of the instructor. The South from the colonial period to the Civil War with emphasis on political, economic, and social institutions distinctive to the South. Three hours each week.

448 The New South (3)
Prerequisite: History 231-232 or consent of the instructor. Aftermath of Reconstruction, rise of the New South, effects of industrialism, continuation and decline of sectionalism. Three hours each week.

449 The Civil War and Reconstruction (3)
Prerequisite: History 231-232 or consent of the instructor. The American Civil War and Reconstruction of the South through 1877. Three hours each week.

471,472 History of Great Britain (3,3)
Prerequisite: History 111-112 or consent of the instructor. 471: Roman Britain to 1688. 472: 1688 to the present. Three hours each week.

473 History of Canada (3)
Prerequisite: History 111-112 or History 231-232 or consent of the instructor. A brief survey of Canada under the French; development under British control; evolution of the Dominion; relations with the United States and British Commonwealth of Nations. Three hours each week.

475 History of Ireland (3)
Prerequisite: History 111-112 or consent of the instructor. A brief survey of the history of Ireland from Neolithic times to the present, with emphasis on the Celtic culture, Christian influences, and the religio-political conflicts of the 19th and 20th centuries. Three hours each week.

481,482 History of Russia (3)
Prerequisite: History 111-112 or consent of the instructor. 481: To the Bolshevik Revolution. 482: From the Bolshevik Revolution to the present. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in History (2-3)
Prerequisite: Senior standing. Individual study for honors students.

MARINE BIOLOGY

(See Biology)

MATHEMATICAL SCIENCES

Dr. Toney, *chairman*. Mr. Brown, Dr. Crews, Dr. Dankel, Dr. Greim, Dr. Halsey, Dr. V. Hernandez, Mr. Long, Mr. Lupton, Miss Moye, Dr. Norris, Miss Scott, Mr. Trivette.

COMPUTER SCIENCE

105 Survey of Computer Applications (2)
An introduction to data processing for non-majors with an emphasis on understanding capabilities without engineering or programming skill. History and structure of computer systems. Concepts of simulation, operational control, information management, and time-sharing with related terminology. Types of errors in computer based systems. Social implications of the future potential of computer technology. Practice with using programs in the university library. Two hours each week.

111 Introduction to Computing Techniques (2)
Prerequisite or corequisite: Mathematics 111 or 115. Algorithms and computer systems. Data representation. Organization and characteristics of computers. Survey of computers, systems, and applications. A programming laboratory must be taken concurrently. Two hours each week.

115 Programming Laboratory—FORTRAN (1)
Prerequisite or corequisite: Computer Science 111. Elementary programming techniques. Debugging and verification of programs. Computer solution of numeric problems. One two-hour laboratory each week.

116 Programming Laboratory—PL/1 (1)
Prerequisite or corequisite: Computer Science 111. Elementary programming techniques. Debugging and verification of programs. Computer solution of numeric and non-numeric problems. One two-hour laboratory each week.

117 Programming Laboratory—COBOL (1)
Prerequisite or corequisite: Computer Science 111. Elementary programming techniques. Debugging and verification of programs. Computer solution of management problems. One two-hour laboratory each week.

118 Programming Laboratory—Interactive (1)
Prerequisite or corequisite: Computer Science 111. BASIC programming. Debugging and verification of programs. Computer solution of problems using interactive techniques. One two-hour laboratory each week.

211 Assembly Language and Computer Organization (3)
Prerequisite: Computer Science 111. Computer structure, machine language, instruction execution, addressing techniques and digital representation of data. Computer systems organization, logic design, microprogramming, and interpreters. Symbolic coding and assembly systems, macro definition and generation, and program segmentation and linkage. Systems and utility programs, programming techniques, and recent developments in computing. Several computer projects to illustrate basic machine structure and programming techniques. Two lecture and two laboratory hours each week.

305 Computer Graphics (3)
Prerequisite: Computer Science 111 and Mathematics 213. Display memory generation of points, vectors, etc. Interactive versus passive graphics.

Analog storage of images on microfilm, etc. Digitizing and digital storage. Pattern recognition by features, syntax tables, random nets, etc. Data structures and graphics software. The mathematics of three-dimensions, projections, and the hidden-line problem. "Graphical programs," computer-aided design and instruction, and animated movies. Three hours each week.

311 Programming Languages (3)
Prerequisite: Computer Science 111 and 331. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, prefix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures. Three hours each week.

325 (Mathematics 325) Numerical Algorithms (3)
Prerequisite: Computer Science 111 and Mathematics 212. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

331 (Mathematics 331) Discrete Structures (3)
Prerequisite: Computer Science 111. Review of set algebra including mappings and relations. Algebraic structures including semigroups and groups. Elements of the theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science. Three hours each week.

332 Data Structures (3)
Prerequisite: Computer Science 331. Basic concepts of data. Linear lists, strings, arrays, and orthogonal lists. Representation of trees and graphs. Storage systems and structures, and storage allocation and collection. Multilinked structures. Symbol tables and searching techniques. Sorting (ordering) techniques. Formal specification of data structures, data structures in programming languages, and generalized data management systems. Three hours each week.

340 Computer Organization (3)
Prerequisite: Computer Science 211 and 331. Basic digital circuits, Boolean algebra and combinational logic. Data representation and transfer, and digital arithmetic. Digital storage and accessing, control functions, input-output facilities, system organization, and reliability. Description and simulation techniques. Features needed for multiprogramming, multiprocessing, and realtime systems. Other advanced topics and alternate organizations. Three hours each week.

410 Compiler Construction (3)
Prerequisite: Computer Science 311 and 332. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping. Three hours each week.

415 Formal Languages and Syntactic Analysis (3)
Prerequisite: Computer Science 311 and 332. Definition of formal grammars: arithmetic expressions and precedence grammars, context-free and finite-state grammars. Algorithms for syntactic analysis: recognizers, backtracking, operator precedence techniques. Semantics of grammatical constructs: reductive grammars, Floyd productions, simple syntactical compilation. Relationship between formal languages and automata. Three hours each week.

420 Simulation Techniques (3)
Prerequisite: Computer Science 331, Statistics 361. Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to, or review of, queueing theory and stochastic processes. Comparison of discrete change simulation languages. Simulation methodology including generation of random numbers and variates, design of simulation experiments for optimization, analysis of data generated by simulation experiments, and validation of simulation models and results. Selected applications of simulation. Three hours each week.

425 (Mathematics 425) Numerical Analysis (3)
Prerequisite: Mathematics 315, Computer Science 325. A thorough treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers. Three hours each week.

431 Switching Theory (3)
Prerequisite: Computer Science 331. Switching algebra, gate network analysis and synthesis, Boolean algebra, combinational circuit minimization, sequential circuit analysis and synthesis, sequential circuit state minimization, hazards and races, and elementary number systems and codes. Three hours each week.

432 Sequential Machines (3)
Prerequisite: Computer Science 431. Definition and representation of finite state automata and sequential machines. Equivalence of states and machines, congruence, reduced machines, and analysis and synthesis of machines. Decision problems of finite automata, partitions with the substitution property, generalized and incomplete machines, semigroups and machines, probabilistic automata, and other topics. Three hours each week.

435 Theory of Computability (3)
Prerequisite: Computer Science 331. Introduction to Turing machines, Wang machines, Shepherdson-Sturgis, and other machines. Godel numbering and unsolvability results, the halting problem. Post's correspondence problem, and relative uncomputability. Machines with restricted memory access, limited memory, and limited computing time. Recursive function theory and complexity classification. Models of computation including relationships to algorithms and programming. Three hours each week.

445 Systems Programming (3)
Prerequisite: Computer Science 311, 332 and 340. Review of batch process systems programs, their components, operating characteristics, user services and their limitations. Implementation techniques for parallel processing of input-output and interrupt handling. Overall structure of multiprogramming systems on multiprocessor hardware configurations. Details on addressing techniques, core management, file system design

and management, system accounting, and other user-related services. Traffic control, interprocess communication, design of system modules, and interfaces. System updating, documentation, and operation. Three hours each week.

475 Topics in Computer Science (3)
Prerequisite: Senior standing and permission of instructor. Topics of current interest in computer science not covered in existing courses. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Seminar in Computer Science (1)
Prerequisite: Junior or senior standing and consent of instructor.

499 Honors Work in Computer Science (2-3)
Prerequisite: Eligibility for honors program. Individual study for honors students.

MATHEMATICS

100 Foundations of Algebra (0)
Designed primarily for students not prepared for Mathematics 111 who need additional manipulative skills, particularly in algebra. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

101-102 College Mathematics for the General Student (3-3)
A terminal sequence designed for the general student. Cannot be substituted for Mathematics 111-112, 115, or 121-122. Algebraic and trigonometric functions with emphasis on fundamentals and applications rather than on manipulative skills, and an appreciation of other mathematical concepts, such as calculus, computers, geometry, probability, and statistics. Three hours each week.

111-112 Precalculus Mathematics (3-3)
Intended as a preparatory course for further mathematics, particularly the calculus. Fundamental operations, real number and order axioms, factoring, exponents, radicals, solutions of equations and systems of equations, circular functions, trigonometric relations, triangle solutions, variation, logarithms, functions and their inverses. Three hours each week.

115 Elementary Mathematical Analysis (3)
Prerequisite: Strong high school background including at least two years of algebra, one year of geometry, and a half-year of trigonometry. Designed for students with sufficient manipulative skill for calculus but lacking theoretical experience. Real and complex number systems, elementary set theory, functions and their inverses, mathematical induction, exponential and logarithmic functions, polynomial and rational functions, circular (trigonometric) functions and inverses. Three hours each week.

121-122 Finite Mathematics and Analysis (3-3)
Recommended for students concentrating in business and the social sciences. Sets, the real number system, fundamental operations, and inequalities, systems of equations and inequalities, matrices and determinants, logarithms, functions and graphs including straight lines and the

conics, average and instantaneous rates of change, rules of differentiation with applications including maxima and minima and related rates, integrals of algebraic functions, area between two curves. Three hours each week.

211-212-213 The Calculus with Analytic Geometry (4-4-4)
Prerequisite: Mathematics 112 or 115. Functions and limits; differentiation with applications including maxima and minima, related rates, differentials and approximations; theory of integration with applications, equations of curves including the conic sections; transcendental functions, polar coordinates and parametric equations; infinite sequences and series; solid analytic geometry, partial derivatives; multiple integrals. Three hours lecture and two hours laboratory each week.

225 A Short Course in Calculus (3)
Prerequisite: Mathematics 112, 115 or 122. The differential and integral calculus with applications related to problems in the social and natural sciences. Little knowledge of trigonometry is required. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Mathematics for Elementary Teachers (3)
Prerequisite: Mathematics 101. Open only to students concentrating in elementary education and designed primarily for students specializing in intermediate education. Modern approaches to and principles of mathematics. Three hours each week.

315 Differential Equations (3)
Prerequisite: Mathematics 213. First order equations with variables separable, exact equations, Euler's method of approximate solution, linear equations of first order, applications, linear equations of higher order with constant coefficients, solutions by repeated linear first order equations, variation of parameters, undetermined scaling variables, applications to networks and dynamical systems, introduction to series-solutions. Three hours each week.

316 Introduction to Vector Analysis (3)
Prerequisite: Mathematics 213. Addition of vectors and operations with scalars and vectors; scalar, vector and triple products; vector and scalar derivatives; line, surface and volume integrals; theorems of Gauss, Green and Stokes. Three hours each week.

317 Intermediate Analysis (3)
Prerequisite: Consent of instructor. Sets and mappings; countable, connected, open and closed sets; sequences and convergence; continuity; metric spaces. Precision in statements of definitions, axioms and theorems, and rigor in proofs are emphasized. Three hours each week.

325 (Computer Science 325) Numerical Algorithms (3)
Prerequisite: Computer Science 111, Mathematics 212. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

331 (Computer Science 331) Discrete Structures (3)
Prerequisite: Computer Science 111. Review of set algebra including map-

pings and relations. Algebraic structures including semigroups and groups. Elements of the theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science. Three hours each week.

335 Linear Algebra and Matrices (3)
Corequisite: Mathematics 213 or consent of instructor. Systems of linear equations, vector spaces, algebra of matrices and linear transformations, determinants, applications. Three hours each week.

336 Modern Algebra (3)
Prerequisite: Mathematics 335 or consent of instructor. Equivalence relations; groups, subgroups, normal subgroups, quotient groups; rings, subrings, ideals, quotient rings; rings of integers, fields of rational, real and complex numbers, polynomial rings. Three hours each week.

345 Modern College Geometry (3)
Prerequisite: Mathematics 212 or consent of instructor. Use of elementary methods in advanced study of the triangle and circle, special emphasis on solving original examples, comparison of Euclidean and non-Euclidean and projective geometries. Three hours each week.

346 Historical Development of Mathematics (3)
Corequisite: Mathematics 212 or consent of instructor. Development of mathematics from earliest systems to present century. Personalities involved, with the contributions of each. A problem-study approach to give the student some training in research. Three hours each week.

365 (Statistics 365) Probability Theory and Its Applications (3)
Prerequisite: Statistics 361. Fundamental concepts of probability theory including probability spaces, conditional probability, independence, central limit theorem, law of large numbers; formulation, analysis, and interpretation of probabilistic models in the natural, life, social, and managerial sciences, such as random walks, population models, queues, diffusion and learning models. Three hours each week.

411-412 Advanced Calculus (3-3)
Prerequisite: Mathematics 317. Advanced study of convergence, continuity, differentiation, and integration in R and R^n infinite series. Three hours each week.

415 Introduction to Complex Variables (3)
Prerequisite: Mathematics 411. Complex numbers, complex plane arguments and roots, conjugate coordinates, some definitions, the Cauchy-Riemann equations, Riemann surfaces, integration of analytic functions, Taylor series, Laurent series, the residue theorem. Three hours each week.

418 Topics in Analysis (3)
Prerequisite: Consent of instructor. An intensive study of a topic from applied or modern analysis, such as calculus of variations, partial differential equations, integral transforms, Fourier series, integral equations, special functions, tensor analysis, advanced ordinary differential equations, functional analysis, Lebesque integration, or generalized functions. May be repeated with consent of instructor. Three hours each week.

425 (Computer Science 425) Numerical Analysis (3)
Prerequisite: Mathematics 315, Computer Science 325. A thorough treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value

problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers. Three hours each week.

428 Topics in Applied Mathematics (3)
Prerequisite: Mathematics 315 or consent of instructor. Mathematical models of physical, biological, social, and communication phenomena are formulated, analyzed and interpreted. All interested students and faculty are invited to participate in the choice of problems and methods, and in the conduct of the course. Three hours each week.

435 Theory of Numbers (3)
Prerequisite: Mathematics 336. Divisibility, Euclidean algorithm, congruences, residue classes, Euler's functions, primitive roots, Chinese remainder theorem, quadratic residues, continued fractions, Gaussian integers. Three hours each week.

455 Introduction to Topology (3)
Prerequisite: Mathematics 336 or 317, or consent of instructor. Metric spaces, complete metric spaces, topological spaces, bases and subbases of a topology, separation axioms, compact and connected spaces, product topology. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing, consent of the department chairman, a "B" or better average on all mathematics courses taken.

495 Seminar in Mathematics (1)
Discussion of selected topics and problems. One hour each week.

STATISTICS

265 Introduction to Statistics (3)
Prerequisite: Mathematics 101, 111, 115 or 121. Collection, organization, analysis, and interpretation of numerical data obtained from various fields of study. Hypothesis testing, analysis of variance, correlation and regression. Three hours each week.

361 Introduction to Probability and Applied Statistics (3)
Prerequisite: Mathematics 211 or 225. Basic concepts of probability and statistics with an emphasis on applications. Elementary probability models, functions of random variables, distributions, sampling, data description, hypothesis testing, confidence intervals, tests of significance, goodness of fit, regression correlation, least square curve fitting, one-way analysis of variance. Three hours each week.

365 (Mathematics 365) Probability Theory and Its Applications (3)
Prerequisite: Statistics 361. Fundamental concepts of probability theory including probability spaces, conditional probability, independence, central limit theorem, law of large numbers; formulation, analysis, and interpretation of probabilistic models in the natural, life, social, and managerial sciences, such as random walks, population models, queues, diffusion and learning models. Three hours each week.

366 Mathematical Statistics (3)
Prerequisite: Statistics 361. Justification of elementary statistical procedures, together with an introduction to more advanced methods, such as experimental design, analysis of variance, regression, general linear and curvilinear models, partial correlation, and multiple regression. Three hours each week.

MEDICAL TECHNOLOGY

(See Biology)

MODERN LANGUAGES

Dr. Sparks, *chairman.* Dr. Beeler, Mrs. Bellamy, Mrs. Cheek, Dr. González-del-Valle, Mr. Lowe, Mr. Mount, Mr. Pérez, Dr. W. Randall, Mr. Stites.

A student who offers two high school units in French, German or Spanish, and who wishes to continue the study of the same language, will normally begin at the intermediate level. However, a student whose language placement test scores and high school language grades are not satisfactory will be placed in and granted credit for the elementary level. A student who offers three or more high school units in French, German or Spanish, and whose placement test scores are sufficiently high, may gain admission to the 300 level courses in the language.

MODERN LANGUAGE

305 General Linguistics (3)
A descriptive study of the languages of the world, their history and development, with some attention to comparative grammar and phonology. Three hours each week.

306 Meaning and Language Change (3)
Development of word meanings from primitive roots to modern usage; changes in word meanings and forms due to both psychological and physiological factors; culture as "the silent language"; modern semantics, considering such phenomena as loaded words; euphemisms, and ameliorative and pejorative change in meanings; language as a vehicle for advertising and propaganda. Three hours each week.

ARABIC

101-102 Elements of Written Arabic (3-3)
Primary emphasis on literary Arabic, with attention given to spoken colloquials of Egypt, Syria, Palestine, and Iraq as modern developments of classical Arabic. The oral approach is not used; rather the aim is to enable the student to read and to write the modern and classical language. Three hours each week.

201-202 Intermediate Arabic (3-3)
Continuing study of more advanced grammar. Readings from the Qur'an, philosophical texts, modern newspapers, and contemporary literature. Emphasis on writing Arabic; personal and business correspondence and original prose. Some attention to Arabic poetry of the classical period. Three hours each week.

FRENCH

101-102 Elementary French (3-3)
Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken French;

reading, writing, and basic conversation. Three hours each week.

105 French for Tourists (3)
General interest course, but designed specifically for those planning to travel in a French-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week.

201-202 Intermediate French (3-3)
Prerequisite: French 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanations of grammatical points when necessary. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Conversation and Composition (3)
Prerequisite: French 202 or equivalent. Intensive training in spoken and written French. Three hours each week.

306 Advanced Grammar (3)
Prerequisite: French 202 or equivalent. Comparative grammar and translation; required of those preparing to teach at the high school level. Three hours each week.

307 Phonetics (3)
Prerequisite: French 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those preparing to teach at the high school level. Three hours each week.

311,312 French Civilization (3,3)
Prerequisite: French 202. Geographical, historical, and cultural aspects of France. 311: From prehistoric times to the French Revolution, 312: From the French Revolution to the present. Three hours each week.

321, 322 Survey of French Literature (3,3)
Prerequisite: French 202. Extensive readings covering the main currents of French literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. Three hours each week.

336 Explication De Texte (3)
Prerequisite: French 305 or equivalent. Training in French textual criticism; oral and written reports. Three hours each week.

405 Advanced Conversation and Composition (3)
Prerequisite: French 305 or equivalent. Emphasis on oral French, essay writing and translation. Recommended for students preparing for teaching. Three hours each week.

425 French Literature of the Sixteenth Century (3)
Prerequisite: French 322 or equivalent. Major writers of the Renaissance: Rabelais, Ronsard, Du Bellay, Montaigne, and others; oral and written reports. Three hours each week.

426 French Literature of the Eighteenth Century (3)
Prerequisite: French 322 or equivalent. Major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau, and others; oral and written reports. Three hours each week.

430 The French Novel of the Twentieth Century (3)
Prerequisite: French 322. Readings, discussion and analysis of representative works of Proust, Gide, Malraux, Sartre, Camus, and others; oral and written reports. Three hours each week.

435 The Nineteenth Century French Novel (3)
Prerequisite: French 322. Readings, discussion and analysis of major novels; romanticism, realism, and naturalism. Three hours each week.

436 French Classicism (3)
Prerequisite: French 322. Readings, discussion and analysis of representative works with emphasis on dramatic literature of the 17th century: Corneille, Racine, and Molière. Three hours each week.

437 French Lyric Poetry from Villon to Baudelaire (3)
Prerequisite: French 322 or equivalent. Major lyric forms from the Middle Ages to the 19th century; oral and written reports. Three hours each week.

438 Masterpieces of French Drama (3)
Prerequisite: French 322 or equivalent. The theatre in France from the Renaissance to modern times. Representative texts; oral and written reports. Three hours each week.

439 Masterpieces of French Prose Fiction (3)
Prerequisite: French 322 or equivalent. Representative works of imaginative French prose from the 17th century to the present; oral and written reports. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in French (2-3)
Prerequisite: Senior standing and eligibility for honors program. Independent study for honors students.

GERMAN

101-102 Elementary German (3-3)
Emphasis on achievement of an active command of the language. Aural-oral practice, intensive study of the basic patterns of spoken German; reading, writing and basic conversation. Three hours each week.

201-202 Intermediate German (3-3)
Prerequisite: German 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including history, literature, religion, and the sciences. Composition and conversation to enable the student to apply and expand his knowledge of the language. Individual projects relating to the student's major field of interest. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Conversation and Composition (3)
Prerequisite: German 202 or consent of the instructor. Intensive training in spoken and written German. Three hours each week.

321-322 Survey of German Literature (3-3)
Prerequisite: German 202 or consent of instructor. Extensive readings covering the main trends of German literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. 321: Literature through Goethe. 322: Literature beginning with the *Romantiker*. Three hours each week.

350 Masterpieces of German Literature in English Translation (3)
Reading, discussion, and analysis of representative works by major German authors: Lessing, Goethe, Schiller, Kleist, Hebbel, Hauptmann, Mann, Hesse, and others. Knowledge of German not required. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

PORTUGUESE

101-102 Elementary Portuguese (3-3)
Emphasis on the acquisition of an active and useful command of the language. Intensive aural-oral practice with the study of grammatical structures along with the pursuit of a reading and writing ability. Discussions to introduce the students to the culture of the Portuguese-speaking areas of the world, primarily Brazil and Portugal. Three hours each week.

201-202 Intermediate Portuguese (3-3)
Prerequisite: Portuguese 102 or equivalent. 201: A thorough and practical review and summarization of modern Portuguese. Introduction to readings of literary and intellectural value, as well as some materials of social and political interest. Continuation of the aural-oral practice in class. 202: Emphasis on reading for the student in subjects of various types. Materials drawn from fields such as history, politics, sociology, geography, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief grammatical explanations when necessary. Three hours each week.

SPANISH

101-102 Elementary Spanish (3-3)
Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken Spanish; reading, writing and basic conversation. Three hours each week.

105 Spanish for Tourists (3)
General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-

visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week.

201-202 Intermediate Spanish (3-3)
Prerequisite: Spanish 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanation of grammatical points when necessary. Three hours each week.

205 Business Spanish (3)
Prerequisite: Spanish 102 or consent of the instructor. Designed for students who need familiarization with the terminology necessary for the fields of economics, business, accounting, natural sciences and others. Business correspondence in Spanish and the currency systems of the Spanish speaking countries are included. Three hours each week.

209,210 Masterpieces of Spanish Literature in Translation (3,3)
209: Study of the great works of Spanish literature of the Middle Ages and the Golden Age, including the *Poem of My Cid,* the *Book of Good* Love, the 'Celestina, *Lazarillo de Tormes, El burlador de Sevilla,* and *Don Quixote.* Reading and class discussion in English. 210: Representative works of the 19th and 20th centuries in Spain, including selections from Galdós, the Generation of '98, García Lorca, Camilo José Cela, and Ramón Sender. Reading and class discussion in English. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Conversation and Composition (3)
Prerequisite: Spanish 202 or equivalent. Intensive training in spoken and written Spanish. Three hours each week.

306 Advanced Grammar (3)
Prerequisite: Spanish 202 or equivalent. Grammatical forms and usage; required of those who plan to teach at the high school level. Three hours each week.

307 Phonetics (3)
Prerequisite: Spanish 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those who plan to teach at the high school level. Three hours each week.

311,312 Spanish and Spanish-American Civilization (3,3)
Prerequisite: Spanish 202 or equivalent. Geographical, historical and cultural aspects of Spain (311) and Spanish America (312). Three hours each week.

321,322 Survey of Spanish Literature (3,3)
Prerequisite: Spanish 202 or equivalent. Extensive readings covering the main currents of Spanish literature; emphasis in classroom discussions on textural analysis and criticism; oral and written reports. Three hours each week.

405 Advanced Conversation and Composition (3)
Prerequisite: Spanish 202 or equivalent. Emphasis on oral Spanish, essay writing and translation. Recommended for students preparing for teaching. Three hours each week.

421,422 Spanish-American Literature (3,3)
Prerequisite: Spanish 322 or equivalent. 421: Representative works from colonial times to the Modernista movement. 422: Representative works from the Modernista movement to the present with emphasis on the novel and poetry. Three hours each week.

425 Twentieth Century Spanish Novel (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of representative novels from the Generation of 1898 to the present. Three hours each week.

426 Twentieth Century Spanish Drama and Poetry (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of representative drama and poetry from the Generation of 1898 to the present. Three hours each week.

430 Spanish Literature Before the Golden Age (3)
Prerequisite: Spanish 322 or equivalent. Epic and lyric poetry, the exemplar collections, *La Celestina*, the novels of chivalry, the sentimental novel, and the Moorish novel. Three hours each week.

431,432 Golden Age Drama (3,3)
Prerequisite: Spanish 322 or equivalent. 431: Lope de Vega and his contemporaries. 432: Calderón and his contemporaries. Three hours each week.

433,434 Nineteenth Century Spanish Novel, Drama and Poetry (3,3)
Prerequisite: Spanish 322 or equivalent. 433: Costumbrismo, regionalism, and realism with emphasis on the novel. 434: Spanish drama from Moratin's neoclassic comedies to the Generation of 1898 with emphasis on the romantic and realistic theatre. Reading from representative authors of romantic poetry. Three hours each week.

435 Golden Age Prose (3)
Prerequisite: Spanish 322 or equivalent. The novel and short story with emphasis on Cervantes. Three hours each week.

436 The Generation of 1898 (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of representative works; oral and written reports. Three hours each week.

438 Eighteenth Century Spanish Literature (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of major writers of the 18th century. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Spanish (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

MUSIC

Dr. Deas, *chairman*. Mr. W. Adcock, Mrs. Ping, Mr. Steen, Mr. Thornton, Mr. Wiley.

PIANO PROFICIENCY EXAMINATION

1. Prepare from memory one piece (as found in Piano Methods for Adults by Bastien-Bastien) on the level of:
   Minuet in F major—Mozart
   Minuet in G—Bach
   Sonatina in C major—Clementi
   Sonatina in C, op. 157, No. 1—Spindler
2. Sight Reading: Material appropriate to the level as described above.
3. Arpeggios: All major and minor arpeggios hands together, 2 octaves, ascending & descending.
4. Triads: To be played hands together, all major and minor triads, root position, first inversion, second inversion, ascending and descending—basic cadential progressions, including secondary dominants and modulation.
5. Scales: All major and minor scales, hands together, 2 octaves ascending & descending.
6. Harmony: Students will be required to harmonize at sight simple folk songs with appropriate accompaniment.

082 Accompanying (1)

Prerequisite: Consent of instructor. Accumulative credit limited to eight semester hours. Student will be assigned an instrumentalist or vocalist with whom to work. One hourly class meeting per week, plus accompanying for lesson of soloist and adequate rehearsal time with soloist per week to prepare for the lesson of the soloist.

083 UNC-W Chamber Singers (1)

Select group drawn from the concert choir (086) by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsals per week.

084 Jazz Ensemble (1)

Prerequisite: Permission of instructor. The study and performance of modern jazz techniques and interpretation of popular styles, including instruction in improvisation. Members will be chosen from the Wind Ensemble (MUS 085). Two hourly rehearsals per week.

085 Wind Ensemble (1)

Open to any student who has had previous training or experience in instrumental music and who has the consent of the director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

086 Concert Choir (1)

Prerequisite: Auditions by director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

087 Orchestra (1)

Tuesdays 7:30-9:30 p.m. Auditions by director. Study and performance of the orchestral literature performed with the UNC-W/Community Orchestra which meets for a minimum of two hours per week and gives an average of three performances per year.

101-102 Theory I (3-3)
101: Concepts: Time, gesture, pitch. Fundamentals of notation. Functional tonality. Basis of tonal counterpoint: Two, three, and four voices. Analysis of Bach chorales, melodic structures. 102: Concepts: Continued. Application of basic concepts in analysis of 18th century music literature. Three lecture and two laboratory hours each week.

105 Rudiments of Music (3)
A general survey of the basic materials of music, including the study of musical rudiments, listening experiences, sight singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for Music Theory 101, and for students who wish to increase their knowledge of music. Three hours each week.

115 Survey of Music Literature (3)
Designed to increase the student's knowledge and appreciation of music; technical knowledge of music not required. Three hours each week.

116 History of Jazz (3)
A survey of the evolution of this American art form from its African roots and European influences to the present. Technical knowledge of music not required. Three hours each week.

121-122 Class Strings (1-1)
Prerequisite: Consent of instructor. Class instruction in violin, viola, cello or string bass. Prior experience is not required. Two laboratory hours each week.

133 Opera Workshop (3)
Prerequisite: Music 145 or consent of instructor. The musical preparation and staging of operatic scenes through dramatic interpretation, body movement, and improvisation. Three hours each week.

134 Choral Workshop (3)
Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening. Three hours each week.

141 Class Voice (1)
Prerequisite: Consent of instructor. Singing techniques learned through vocal exercises and study of song literature. Two hours each week. Accumulative credit.

145-245-345-445 Voice (1 or 2)
Prerequisite: Consent of instructor. Fundamentals of vocal techniques and vocal literature. Music 145 is prerequisite to 245, 245 is prerequisite to 345, etc. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

151-152 Class Piano I (1-1)
Prerequisite: Consent of instructor. Recommended for all students enrolled in Music Theory 101-102 and music majors who have not passed the piano proficiency examination. Laboratory hours as required.

155-255-355-455 Piano (1 or 2)
Prerequisite: Consent of instructor. Music 155 is prerequisite to 255, etc. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

165-265-365-465 Wind Instruments (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of wind instrument of the student's choice. Music 165 is prerequisite to 265, etc. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

175-275-375-475 Organ (1 or 2)
Prerequisite: Consent of instructor. Private instruction in organ. Music 175 is prerequisite to 275, etc. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

185-285-385-485 Strings (1 or 2)
Prerequisite: Consent of instructor. Private instruction in violin, viola, cello or string bass. Music 185 is prerequisite to 285, etc. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

201-202 Theory II (3-3)
Prerequisite: Music 101-102. 201: Music from the medieval period through the renaissance. 202: Tonal forms, 17th/18th centuries (Monteverdi to Bach). Basic analytical techniques. Three hours each week.

203 Composition (1-3)
Prerequisite: Consent of instructor. A beginning study of the theory and practice of compositional techniques through direct application in original compositions. Course operated in conjunction with electronic music studio. Accumulative credit. Laboratory hours as required.

211-212-213 History of Music (2-2-2)
211: Stylistic development of music and related social and historical events of the medieval and renaissance eras. 212: Stylistic development of music and related social and historical events of the 17th and early 18th centuries. 213: Stylistic development of music and related social and historical events of the later 18th and 19th centuries.

225 Woodwind Methods (1)
Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

226 Brass Methods (1)
Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

227 Percussion Methods (1)
Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

251-252 Class Piano II (1-1)
Prerequisite: Music 152 or consent of instructor based on placement. Recommended for all music majors who have not passed the piano proficiency examination. Two laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

301-302 Theory III (3-3)
Prerequisite: Music 202. 301: Tonal forms, 18th/19th centuries (Haydn to Mahler). Structural hearing. 302: Music of the 20th century.

303 Electronic Music (3)
Prerequisite: Consent of instructor. Synthesizer techniques utilizing the Synthi AKS with touch-sensitive keyboard, computer memory bank, and magnetic tape manipulation. Accumulative credit. Three lecture-laboratory hours each week.

306 Orchestration (2)
Prerequisite: Music 121-122, 225, 226, 227. Techniques of transcribing, arranging, and scoring music for various instruments and instrumental combinations. Designed for students concentrating in music.

325 Music Education for Elementary Teachers (3)
Approach to the teaching of music at the elementary level, including use of piano laboratory. Three hours each week.

326 Methods in Music Education (2)
Prerequisite: Music 202. Open only to students concentratiing in music. Approach to the teaching of music at the elementary and junior and senior high school levels. Two hours each week.

337 Vocal Methods (1)
Basic procedures of teaching voice with emphasis on the junior and senior high school levels. Materials for solo voice studied and performed. Two laboratory hours each week.

403 Advanced Composition (1-3)
Prerequisite: Consent of instructor. Music majors only. An in-depth study of contemporary scores and the use of compositional techniques through direct application in original compositions. Course operated in conjunction with the electronic music studio. Accumulative credit. Laboratory hours as required.

405 Choral Conducting (2)
Prerequisite: Music 306 or consent of instructor. Techniques of conducting choral ensembles with emphasis on periodic style and literature. Two lecture and one laboratory hour each week.

406 Instrumental Conducting (2)
Prerequisite: Music 306 or consent of instructor. Techniques of conducting applied to instrumental ensembles with emphasis on orchestral and band score reading, periodic style, literature, and rehearsal techniques. Two lecture and one laboratory hour each week.

490 Thesis (1)
A research thesis in a subject to be determined in consultation with the music faculty.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Recital (1)
Consent of the music faculty.

499 Honors Work in Music (2-3)
Prerequisite: Eligibility for honors program and junior or senior standing. Independent study for honors students.

NURSING

Miss Dixon, *director*. Mrs. Barfield, Miss Booe, Mrs. Lowe, Mrs. Lewis, Mrs. White, Miss Whitfield.

110 Fundamentals of Nursing (6)
Corequisite: Biology 215. Introduction to the nursing profession and to the nursing process. Concept of adaptation explored with an overview of the many factors influencing health. Provision of learning experiences to utilize nursing skills to care for individuals who need help in meeting basic needs. Four lecture and six laboratory hours each week.

120 Nursing Intervention I (7)
Prerequisite: Nursing 110 and Biology 215. Focus is on planning and implementing nursing intervention for individuals presenting a variety of physical and psychological needs. The conceptual framework of stress-adaptation emphasizes the interrelationship of these needs. Four lecture and nine laboratory hours each week.

135 Nursing Intervention II (4)
Prerequisite: Nursing 120 and Biology 225. Provides a learning experience in psychiatric/mental health nursing. Emphasis is on the use of self as a therapeutic tool in nursing intervention. Nine lecture and nine laboratory hours each week.

220 Nursing Intervention III (9)
Prerequisite: Nursing 120. Focus is on planning and implementing nursing intervention for individuals presenting complex physical and psychological needs. Five lecture and twelve laboratory hours each week.

225 Nursing Intervention IV (9)
Prerequisite: Nursing 220. Focus is on planning and implementing nursing intervention to meet the needs of patients in the maternity, child, family cycle. Emphasis is on the family unit in the community setting as well as during hospitalization. Five lecture and twelve laboratory hours each week.

250 Nursing Seminar (3)
Prerequisite: Nursing 220. Provides an opportunity for an exploration of nursing in today's society with a focus on current trends and issues. Two lecture and three laboratory hours each week.

PHILOSOPHY AND RELIGION

Dr. Megivern, *chairman*. Mr. Duckett, Dr. Hall, Dr. McGowan, Dr. Shinn.

PHILOSOPHY

101 Invitation to Philosophical Thinking (3)
An invitation to participating students to explore key aspects of human existence in an effort to clarify its foundations. Three hours each week.

110 Formal Logic (3)
Introduction to the principles of formal logic including the rules of deduction, the categorical syllogism, and a reading of Aristotle's *Categories* and *On Interpretation*. Three hours each week.

201-202 History of Western Thought (3-3)
201: Suvey of classical philosophy, Greek and Roman sources of culture.

202: Survey of development of empiricism, Italian Renaissance to 18th century. Three hours each week.

203 Nineteenth Century Philosophy (3)
Survey of major philosophical movements of the century: Romanticism as reaction to Kant; Hegel; Schopenhauer; Utilitarianism; Marx; Nietzsche. New views of science: Wallace, Darwin, Loeb, Driesch, Mach, Pearson. Relationship of 19th to 20th century thought. Three hours each week.

211 Toward a Contemporary Philosophy of Man (3)
An effort to clarify the meanings of man as he presents himself in our contemporary world; oriented toward a theory of education and of psychology. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 The Development of Scholasticism (3)
The leading thinkers and issues from the 9th century rise of dialectics to the 14th century decline into Nominalism. Special attention to the 13th century climax in the works of Bonaventure, Albertus Magnus, and Thomas Aquinas. Three hours each week.

308 Plato (3)
Study of the Dialogues of Plato: Analysis of texts; contemporary interpretations. Three hours each week.

309 Aristotle (3)
An examination of Aristotle's philosophy through selected texts, supplemented with contemporary criticisms. Aristotle's criticisms of Plato; problems of interpretation. Three hours each week.

310 (Political Science 310) Legal Philosophy and Jurisprudence (3)
Prerequisite: Junior standing and/or the consent of instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include: Natural law; historical, analytical and sociological jurisprudence; idealism, utilitarianism and legal realism; equity, justice, precedent, custom and law, and the relation of law and morality. Three hours each week.

315 Ethics (3)
Examination of ethical theories, philosophical and religious; selection of particular issues to illustrate various styles, e.g., war, censorship, abortion, racism. Three hours each week.

316 Aesthetics (3)
Primary source investigation of the major contributors to Western aesthetic theory: Plato, Aristotle, Plotinus, Burke, Lessing, Kant, Hegel, Schopenhauer, Veron, Guyau, Tolstoy, Dessoir, Santayana, Croce, Cassirer, Dewey, and Camus. Three hours each week.

317 Metaphysics and Epistemology (3)
Prerequisite: Philosophy and Religion 201 or 202. Selected readings from classical and contemporary sources on the nature of reality; the theories of knowledge resulting from Western man's reflection upon experience; contributions, e.g., of Plato & Aristotle, Descartes & Kant, Freud, Heidegger and Wittgenstein. Three hours each week.

318 Symbolic Logic (3)
Fundamentals of an axiomatic logical system, including both the propositional calculus and the predicate calculus. Three hours each week.

345 Philosophy of Science (3)
An interdisciplinary seminar with an emphasis upon student research in the history and practice of the philosophy of science. Collaboration of the biology, physics, and philosophy departments. Three hours each week.

405 Contemporary Philosophical Thought (3)
Prerequisite: Philosophy and Religion 201 and 202. Primary source study of various philosophers of the 20th century, representing the major schools or movements. Three hours each week.

415 Existentialism (3)
Prerequisite: Philosophy and Religion 201 and 202. Basic themes in the thought of the leading existentialists and phenomenologists, including Kierkegaard, Nietzsche, Husserl, Jaspers, Heidegger, Sartre, Marcel, Merleau-Ponty, and Ricoeur. Three hours each week.

421-422 Seminar (3-3)
Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary sources of student-selected philosophic and/or religious problems. Three hours each week.

432 Philosophy of Religion (3)
Prerequisite: Philosophy and Religion 201 and 202. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Philosophy (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

RELIGION

141 Greek Grammar (3)
Basic study of the Greek language with special attention to that of the New Testament. Three hours each week.

231 Primitive and Classical Religions (3)
A survey of primitive religion as revealed both in archaeological research and remaining primitive customs; examination of classical faiths of Egypt, Mesopotamia and ancient Europe. Three hours each week.

232 Major World Religions (3)
A survey of Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity, and Islam; historical aspects, basic insights, texts, relevancy to contemporary man. Three hours each week.

235 Introduuction to the Old Testament (3)
Historical study of the Hebrew, Canaanite, Sumerian, Babylonian, and

Egyptian cultures, based upon primary literary and archaeological sources. Three hours each week.

236 Introduction to the New Testament (3)
Historical survey of the canonical Christian literature; illustration of contemporary methods of text-criticism, literary-criticism, form-criticism, and redaction-criticism; focus on results of modern scholarship in appreciating the Gospels and their function in the early Christian community. Three hours each week.

238 Patristic Literature (3)
Survey of the basic works of the major Greek and Latin Christian Fathers from the late 1st century to the early 7th century. Special focus on the formative role of the first six "ecumenical" Councils, from Nicaea in 325 to Constantinople III in 680. Three hours each week.

331 Luke-Acts (3)
Prerequisite: Philosophy and Religion 236. Analysis and interpretation of the two-volume work atttributed to Like, i.e., the third Gospel and the Book of the Acts of the Apostles; comparison of the former with the other two Synoptic Gospels, and significance of the latter for the emerging Christian movement. Three hours each week.

333 The Pauline Corpus (3)
Prerequisite: Philosophy and Religion 236. Analysis and interpretation of the major New Testament Letters attributed to Paul; focus on I & II Thessalonians, Philippians, I & II Corinthians, Galatians, and Romans. Three hours each week.

337 Apocalyptic Literature (3)
Prerequisite: Philosophy and Religion 235, 236, or permission of instructor. A study of Jewish and Christian apocalypses, stressing general characteristics of 'apocalypse', historical and linguistic backgrounds, critical problems, and exegetical study, using Daniel, Ezechiel, and Revelation as examples. Three hours each week.

338 The Prophets of Israel (3)
Prerequisite: Philosophy and Religion 235. Primary source investigation of the Old Testament Prophets and their political, religious, socio-economic and historical background. Three hours each week.

339 Psychology of Religion (3)
A history of the interaction of modern psychology with the Western religious tradition from William James to the present; Freud and Jung, Allport and Menninger, Tillich and May, Hiltner and Pruyser, on such areas as faith and doubt, prayer and prejudice, symbol and guilt, authority and integration of personality. Three hours each week.

351 Reformation and Counter-Reformation (3)
An examination of the Reform movements in the Christian Church from the 12th to the 16th century; efforts of the Monastic and Mendicant Orders; Wycliffe, Henry of Langenstein, Gerson, Dietrich of Niem, John Major; Hus and Conciliarism; Erasmus, Luther, Zwingli, and Calvin; the Council of Trent and Ignatius Loyola. Three hours each week.

353 Church and State in Christian History (3)
A survey of the theoretical and practical problems encountered in the effort to find an appropriate relation of religion to politics; New Testament material, Constantine and Eusebius, Theodosius; Augustine and the

"Holy Roman Empire"; the divine-right-of-kings and Machiavelli; Hobbes, Locke, Rousseau and the Social Contract; Jefferson and Franklin and the American experiment; 20th century role of the U.S. Supreme Court. Three hours each week.

421-422 Seminar (3-3)
Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary sources of student-selected philosophic and/or religious problems. Three hours each week.

432 Philosophy of Religion (3)
Prerequisite: Philosophy and Religion 201 and 202. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

PHYSICAL EDUCATION

Dr. Miller, *chairman*. Dr. E. Allen, Mrs. Batson, Mr. Brooks, Mr. Davis, Miss Donahue, Mr. Gibson, Mr. Honeycutt, Mr. James, Mr. Lane, Mrs. Lewis, Mr. Warner.

101 Foundations of Physical Education (1)
Study of immediate and long-term effects of physical activity and establishment of individualized programs for acquiring and maintaining physical fitness. One lecture and two hours of activity each week.

102 Physical Education Activity (1)
Prerequisite: Physical Education 101 or equivalent. Student may accumulate up to 7 hours credit in Physical Education 102, but is limited to one hour per semester. Three hours each week.

105 Personal Hygiene (3)
Major health problems of the day and how they relate to the individual. Three hours each week.

215 (Biology 215) Anatomy and Physiology (4)
Prerequisite: Credit in Biology or consent of instructor. Brief introduction to major biological principles as applied to study of human anatomy and physiology. Three lecture and three laboratory hours each week.

220 Sports Activities (1)
The following courses are designed to render the student skillful in and knowledgeable about specific sports activities. Exposure to resource materials and teaching techniques appropriate to each sports activity listed as follows: aquatics, archery, badminton, basketball, dance, field hockey, football, golf, gymnastics, soccer, softball, tennis, track and field, volleyball, and wrestling. Three hours each week.

235 Principles of Health and Physical Education (3)
Introduction to the objectives, history, philosophies, trends, and professionalism of health and physical education. Three hours each week.

236 Athletic Officiating I (2)
Rules, officiating techniques, and problems arising in officiating, with emphasis on football, basketball, and baseball. One lecture and two laboratory hours each week.

237 Athletic Officiating II (2)
Rules, officiating techniques, and problems arising in officiating, with emphasis on volleyball, women's basketball, tennis, and badminton. One lecture and two laboratory hours each week.

265 Introduction to Recreation and Parks (3)
The scope, development, structure, purposes, functions, interrelationships of public, commercial, private and voluntary agencies engaged in rendering recreation and park services. This course should be a prerequisite for all other courses in recreation collateral. Three hours each week.

266 Program Planning for Recreation and Parks (3)
Prerequisite: Physical Education 265. An introduction to programming for recreation and parks, including the majors areas of recreation, planning principles, objectives and evaluation. Program factors, such as scheduling, personnel, facilities, equipment, etc., will be considered. Three hours each week.

267 Practicum in Recreation (3)
Prerequisite: Physical Education 265. Supervised experience in recreation and/or park setting. Will include administrative, supervisory, program leadership training in a recreation setting. Recreation problems in low income areas will be examined along with leadership training in special activities and programs. Three hours each week.

268 Social Recreation Leadership (3)
Prerequisite: Physical Education 265. An introduction to methods and materials used in social recreation leadership in various settings. In addition to leadership in political subdivision settings, emphasis will be placed on social recreation leadership for special populations and for private and voluntary agencies.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Health Education (3)
The scope, development and procedures of health education as it relates to the student, health services and the healthful school environment. Emphasis upon the teacher's responsibility to the total school health program. Three hours each week.

306 Safety, First Aid and Athletic Injuries (3)
Fundamentals of administering first aid and treatment of athletic injuries. Three hours each week.

316 Applied Physiology of Exercise (3)
Prerequisite: Physical Education 215. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Two lectures and one laboratory session each week.

320 Methods of Teaching Motor Activity (3)
Emphasis on instructional methodology appropriate to teaching motor skills and sports activities, formulation of objectives, and lesson planning. Includes practicum in teaching. Three hours each week.

335 Readings in Physical Education (3)
A comprehensive review of literature in physical education and related areas. Three hours each week.

336 An Approach to Coaching (3)
The application of philosophical and psychological knowledge and principles to the administration and coaching of sports with special emphasis on research literature. Three hours each week.

355 Tests and Measurements in Physical Education (3)
Use and interpretation of elementary statistical techniques for evaluation and application of tests in physical education; review of current tests in motor ability, physical fitness, classification, sport skills, and knowledge. Three hours each week.

365 Administration of Recreation and Parks (3)
Prerequisite: Physical Education 265. Administrative practices related to recreation and parks services, including budget preparation; legal aspects of recreation and park services; fees and charges; public relations; recruiting, selecting and training personnel; personnel practices, etc. Three hours each week.

366 Water-Related Recreation and Park Facilities and Programs (3)
Prerequisite: Physical Education 265. Principles and procedures of developing recreation facilities for water-related activities, such as pools, marinas, lake facilities, etc. Water-related programs, such as scuba diving, swimming, skiing, etc. Three hours each week.

368 Introduction to Therapeutic Recreation and Special Populations (3)
Prerequisite: Physical Education 265 and 266. The recreation and park program for individuals and groups who are ill, handicapped, aged, or in other special groups conducted by tax-supported, voluntary, or private agencies found in the community, hospitals, penal institutions, or other special residences. Three hours each week.

385 Physical Education in the Elementary School (3)
Open only to students concentrating in elementary education or physical education. Emphasis on concepts, methods, materials, and activities basic to developing and conducting a program of physical education for elementary school children in a self-contained classroom. Three hours each week.

415 Adapted Physical Education (3)
Prerequisite: Physical Education 215 and junior or senior standing. Problems relating to the physiological and kinesiological needs of the individual with physical limitations. Emphasis on the selection of activities that will provide opportunities for optimum development of which he is capable. Two lecture and two laboratory hours each week.

416 Advanced Physiology of Exercise (3)
Prerequisite: Physical Education 316 and consent of instructor. An in-depth study of human physiological adaptation to exercise and training. Emphasis on circulatory hemodynamics, respiratory function, thermal regulation, and blood chemistry during work. Primarily a laboratory experience. Three hours each week.

420 Practicum in Teaching Physical Education (3)
Prerequisite: Physical Education 320. Individualized, supervised practicum in teaching. Experience complemented with weekly seminar on contemporary problems. Three hours each week.

421-422-423-424-425-426 Methods of Coaching (2)
Emphasis on strategy, fundamentals, techniques, training and related duties. Two hours each week.
421 Baseball.
422 Basketball.
423 Football.
424 Track and Field.
425 Soccer.
426 Volleyball.

435 Organization and Administration of Health and Physical Education (3)
Prerequisite: Junior or senior standing. Analysis of problems involved in planning, organizing, and directing health and physical education programs. Three hours each week.

436 Intramurals (3)
Prerequisite: Junior or senior standing. The position of intramural activities in the overall program of physical education. Analysis of problems involved in the administration and organization with emphasis on the practical approach in school systems. Three hours each week.

440 Selected Topics in Physical Education (3)
Survey course for public school teachers with emphasis on updating traditional ideas and principles and introducing new ideas and problems in health and physical education. Three hours each week.

455 Advanced Tests and Measurements in Physical Education (3)
Prerequisite: Physical Education 355. Statistical techniques as applied to research in physical education; measurement and evaluation in areas of agility, balance, power, flexibility, kinesthetic perception and anthropometrics. Three hours each week.

465 Planning of Recreation and Park Areas and Facilities (3)
Prerequisite: Physical Education 365. Study of planning standards and techniques will be considered. Standards for master plans will also be included. Students will develop plans for a recreation area and/or park as part of this course. Three hours each week.

467 Outdoor Recreation (3)
Prerequisite: Physical Education 265. The scope, organization, and program activities using resources in large parks, forests, and primitive areas. Consideration will be given to private, local, state, and federal agencies concerned with outdoor recreation and these areas. Three hours each week.

468 Seminar in Recreation (3)
Discussion of selected topics drawn from current literature. Discussions with various professionals from county, municipal, state, federal, and private recreation and park agencies.

469 Research Methods and Practices in Recreation and Parks (3)
Research techniques employed to solve problems in the recreation and parks field. Research projects, workshops and clinics relative to specific problems on an independent and group basis would be undertaken.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Physical Education (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

PHYSICS

Dr. Clator, *chairman*. Dr. H. Hernandez, Mr. Nelson, Dr. Tiedeman.

101-102 Elementary College Physics (4-4)
Corequisite: Mathematics 111. General physics designed for students in pre-professional programs and the biological sciences and for freshmen planning to concentrate in the physical sciences. Mechanics, heat, sound, light, electricity and magnetism and introduction to modern physics. Three lecture and two laboratory hours each week.

105 Introductory Physics (4)
Terminal course designed to cover basic principles of physics. Three lecture and two laboratory hours each week.

106 (Environmental Studies 106) Environmental Physics (3)
A study of the environment and the interrelation of its physical systems. Emphasis on energy sources, efficiency of their use and the effect on the environment. Three lecture hours each week.

107 Physics of Music (4)
Study of the scientific basis of music. Three lecture and two laboratory hours per week.

108 Meteorology (4)
Prerequisite: Mathematics 102 or 111. A study of the principles underlying atmospheric phenomena and applications to observational techniques. Three lecture and one laboratory hour each week.

201-202 General Physics (5-5)
Corequisite: Mathematics 211-212, respectively. 201: Mechanics, heat, wave motion and acoustics. 202: Electrostatics, magnetism, circuits, electrodynamics, optics, atoms, electrons, radio-activity and nuclear physics. Four lecture and two laboratory hours each week.

206-207 Problems in General Physics (2-2)
Prerequisite: Physics 101-102 and *corequisite:* Mathematics 211-212. Problems in general physics and their applications. Two problem sessions each week.

215-216 Electric Circuits (4-4)
Corequisite: Mathematics 211. Fundamental laws of electric circuits; transient and steady-state sinusoidal analysis of linear circuits by complex frequency; phasor and two-port networks. Three lecture and three laboratory hours each week.

225 Electronics (3)
Prerequisite: Consent of instructor. An introduction to electronics with emphasis on instrumentation and techniques used in scientific laboratories. Two lecture and one laboratory hour each week.

260 Introduction to Astronomy (3)
Corequisite: Mathematics 102. Descriptive course in principles, theories,

and techniques of astronomy. Two lecture and two laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Science for Elementary Teachers (3)
Open only to students concentrating in elementary education and to in-service teachers. Biological and physical science areas appropriate for inclusion in elementary schools. Three hours each week.

315-316 Electricity and Magnetism (3-3)
Prerequisite: Physics 202 and *corequisite:* Mathematics 315, 316. Electric and magnetic field theory; Poisson's and Laplace's equations; harmonic methods, special methods for solution of electrostatic problems; material media and boundary value problems; electromagnetic waves and radiation; electromagnetic laws of optics. Three hours each week.

321-322 Mechanics (3-3)
Prerequisite: Physics 202 and *corequisite:* Mathematics 315, 316. Elements of Newtonian mechanics, mechanics of continuous media, La Grange's equation, rotation of a rigid body. Three hours each week.

335-336 Introduction to Modern Physics (3-3)
Prerequisite: Physics 202. Survey of important developments in atomic and nuclear physics, including relativity, atomic spectroscopy, X-rays and radio-activity. Three hours each week.

370 Photography (2)
Prerequisite: Consent of department chairman. Techniques and procedures in the use of photographic materials and equipment.

400 Advanced Laboratory (1)
Prerequisite: Consent of instructor. Designed to acquaint students with the various laboratory techniques, error analysis and reduction of data by digital computer. One hour each week.

405 History of Physics (1)
Prerequisite: Physics 202 and Mathematics 315. Survey of the growth of physical beliefs and concepts from Copernicus to present. One hour each week.

406 Mathematical Physics (3)
Prerequisite; Physics 202 and Mathematics 315. Designed to provide mathematics necessary for advanced undergraduate and beginning graduate study in physical sciences and to develop a strong background for students continuing into mathematics of advanced theoretical physics. Mastery of calculus and willingness to build on this mathematical foundation are assumed. Three hours each week.

425 Quantum Mechanics (3)
Prerequisite: Physics 315. Basic postulates of quantum mechanics; solution of the wave equation, angular momentum, and the origin of electron spin. Three hours each week.

435 Nuclear Physics (3)
Prerequisite: Physics 335; *corequisite:* Mathematics 315. Introduction to properties of the nucleus; natural and artificial radioactivity; nuclear reactions and particle accelerators. Three hours each week.

445 Optics (3)
Prerequisite: Physics 202; *corequisite:* Mathematics 315. Physical and geometrical optics, Huygen's principle, electromagnetic theory of light. Three hours each week.

455 Thermo-Physics (3)
Prerequisite: Physics 202; *corequisite:* Mathematics 315. Principles of thermodynamics and heat transfer; response of molecules to temperature effects illustrated by introduction to kinetic theory and statistical mechanics. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Physics Seminar (1)
One semester required, with a maximum of four semesters allowed.

499 Honors Work in Physics (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

POLITICAL SCIENCE

Dr. Dixon, *chairman*. Dr. Ahmad, Dr. Chambers, Mr. Lowery.

111 Introduction to Political Science (3)
The study of political science as a discipline; its nature, methods and techniques. An introductory survey of existing knowledge about politics and political systems, including theories and characteristics of political institutions within and among nation-states. Three hours each week.

205 American National Government (3)
Introduction to American national government and politics. Emphasis on structure, processes, and basic principles such as federalism, separation of powers, and judicial review. Three hours each week.

206 American State Government and Politics (3)
A survey and analysis of the organization, functions, and political processes of the American states. Three hours each week.

207 American Urban Government and Politics (3)
A study of the structure, functions, political processes, problems and trends in American city and metropolitan government and politics. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of the department chairman.

300,301 American Constitutional Law (3,3)
Prerequisite: Political Science 205. An intensive study of the Supreme Court decisions which have contributed to the contemporary interpretation of the United States Constitution. The treatment is analytical rather than historical. 300 is concerned with decisions involving the powers of the judicial, executive and legislative branches of the national government, the relationships among these branches, and the federal system.

301 (formerly 406) is a study of decisions involving the Bill of Rights, the 14th Amendment and other provisions which protect individual rights and liberties. Three hours each week.

302 Public Opinion and Democracy (3)
Prerequisite: Political Science 111 or 205 or consent of instructor. An examination of the origin, content, and policy impact of public opinion in democratic nations, with major emphasis on the contemporary American experience. Three hours each week.

303 Elections and Voting Behavior (3)
Prerequisite: Political Science 111 or 205 or consent of instructor. An evaluation of the impact of citizen beliefs and preferences on election outcomes. The course is structured around a critical examination of the assumptions, findings and interpretations of the major voting studies since World War II. Three hours each week.

304 Introduction to Public Policy Analysis (3)
A study of the theories and methods of analyzing and explaining public policy and the substance of recent domestic policies in the areas of public finance and human and physical resources, including welfare, education, protection of the environment, housing, health, urban renewal and transportation. Three hours each week.

307 The American Legislature (3)
Prerequisite: Political Science 205. Functional study of legislative bodies and lawmaking. Among the topics studied will be the role of legislatures; the impact of constituencies, parties, interest groups, interpersonal relationships and other pressures on legislators; legislative structure; and the decision-making process. Three hours each week.

308 Public Administration (3)
Prerequisite: Political Science 205. Introduction to public administration in the United States. Nature and scope of public administration, public interest in the administrative process, role of administrators, formal and informal organization, public personnel and financial management. Three hours each week.

309 The American Chief Executive (3)
Prerequisite: Political Science 205. An examination of the concept of a political chief executive as a coordinate member, with legislature and courts, of a government team. Emphasis will be placed on the powers, roles, decision-making processes, and institutional development of the offices of president, governor, and mayor. Three hours each week.

310 (Philosophy 310) Legal Philosophy and Jurisprudence (3)
Prerequisite: Junior standing and/or consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include natural law; historical, analytical and sociological jurisprudence; idealism; utilitarianism; legal realism; equity, justice, precedent, custom and law; and the relation of law and morality. Three hours each week.

311 Research Methods in Political Science (3)
An introduction to the rationale and application of both traditional and empirical methods of political analysis. Major topics include statement of problem, survey of literature, theory construction, data collection and analysis, and presentation of findings and conclusions. Three hours each week.

314 Modern Political Thought (3)
A critical examination of political ideas from 1500 to 1900 with special attention to those of Machiavelli, Hobbes, Locke, Rosseau, Montesquieu, Hume, Burke, Hegel, Bentham, Marx, the Mills, Spencer, T. H. Green and Nietzsche. Three hours each week.

315 Contemporary Political Ideologies (3)
A study of the concept of ideology and its significance in the modern world. Systematic analysis of the major political ideologies of the 19th and 20th centuries with emphasis on democracy, communism, fascism, nationalism, anarchism, and the New Left. Three hours each week.

330 Political Systems of Africa (3)
The governments and politics of selected sub-Saharan African states. A survey from colonial days to the present with emphasis on the contemporary economic, social and political problems. Special emphasis placed on the Republic of South Africa and the Portuguese colonies where the issues of colonialism and race relations are still important. Three hours each week.

335 European Political Systems (3)
Political institutions and processes of selected European countries, including Great Britain, France and Germany. Three hours each week.

336 Political Systems of the Soveit Union and Eastern Europe (3)
A comparative study of the political institutions and processes of the Soviet Union and the eastern European countries; the post-Stalin dynamics and the nature and significance of contemporary changes. Attention will be given to their foreign relations, especially with Communist China. Three hours each week.

338 Political Systems of the Middle East (3)
The governments and politics of the Middle East with emphasis on the changes that have occurred since 1945. A detailed examination of the forces that have shaped contemporary Middle Eastern politics: Islam, nationalism, modernization, and current political trends. The political institutions and processes and the domestic and foreign policies of selected countries will be studied. Three hours each week.

339 Political Systems of Asia (3)
The political systems of selected Asian countries. Special emphasis on the contemporary political, social and economic problems of India, Pakistan, Japan, China, Indonesia and other Aisan countries. Three hours each week.

405 American Parties and Pressure Groups (3)
An historical and analytical treatment of the appearance and realignment of political parties during the five successive "national party systems" since the beginning of the republic. Special emphasis is given to the question of contemporary party disarray and potential realignment. Three hours each week.

407 The American Judicial Systems (3)
Prerequisite: Political Science 205. Analysis of the organization, powers and role of the judiciary. Topics studied will include the political role of American judges, factors influencing judicial policy-making, selection of judges, the role of lawyers, and socio-metric relationships within the judiciary. Three hours each week.

415 American Political Thought (3)
American political thought from the colonial period to the present. Three hours each week.

425 International Politics (3)
Nature of international relations including analyses of basic factors motivating national policies; the United Nations and other international organizations as institutions for promoting peace and welfare in a world of sovereign states. Three hours each week.

426 International Law (3)
Prerequisite: Political Science 205. Nature, development and basic concepts of international law. Examination of scope, sources and sanctions of international law; its relation to municipal law; the rights and duties of states and individuals; methods of settling international disputes. Characteristic cases used as illustrations. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of the department chairman.

499 Honors Work in Political Science (2-3)
Prerequisite: Eligibility for honors program and junior or senior standing. Individual study for honors students.

PSYCHOLOGY

Dr. Williams, *chairman*. Dr. Bradley, Dr. Brown, Dr. Gerstenhaber, Dr. Jackson, Dr. Kowal, Dr. Newton, Dr. Slager.

105 General Psychology (3)
Principles of psychology with emphasis on scientific methods used in studying human behavior. Three hours each week.

105-51 General Psychology Laboratory (1)
Prerequisite or co-requisite: Psychology 105. Practice of laboratory methods used in the study of behavior. Two hours each week.

145 Psychology Applied To Human Life (3)
A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment. Three hours each week.

225 Introductory Statistics for the Behavioral Sciences (3)
Prerequisite: Psychology 105, Mathematics 121 is suggested. Introduction to parametric statistics as applied to analysis of data from behavioral research as well as an introduction to experimental design. Three hours each week.

255 Introduction to Experimental Psychology (4)
Prerequisite: Psychology 225. Techniques used in data collection, analysis, and reporting in behavioral experiments. Three lecture and two laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 History and Systems of Psychology (3)
Prerequisite: Nine semester hours credit in psychology. History of psychology relative to current trends. Three hours each week.

310 Sensation and Perception (3)
Prerequisite: Psychology 105. A consideration of basic perceptual processes, problems of sensory processing, measurement of sensations, and simple and complex events. Such topics as perceptual cues, constancies, illusions, and person perception will be considered. Three hours each week.

316 Educational Psychology (3)
Prerequisite: Psychology 105 is suggested. Application of psychology to education principles of learning, motivation, individual differences. Three hours each week.

318 Psychology of Motivation (3)
Prerequisite: Psychology 105. Psychology 255 is suggested. A study of the parameters and theories of motivation; both appetitive and aversive drives will be considered. These will be examined as they arise from physiological needs and from learning. Data from animal as well as human studies will be considered. Three hours each week.

320 Child Psychology (3)
Physical and psychological development of the human during childhood; problem areas emphasized. Three hours each week.

321 Adolescent Psychology (3)
Physical and psychological development of the human during adolescence; problem areas emphasized. Three hours each week.

322 Psychology of Exceptional Children (3)
Prerequisite: Three semester hours of psychology. A study of the characteristics and needs of impaired and gifted children. Three hours each week.

336 Industrial Psychology (3)
Prerequisite: Psychology 105. The study of psychological techniques in personnel selection and placement, merit rating, reduction of accidents, training, morale, and other factors utilized in industrial work. Three hours each week.

365 Social Psychology (3)
Prerequisite: Psychology 105. The study of behavior as a function of group situations. Three hours each week.

370 (Environmental Studies 370) Environmental Psychology (3)
Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

410 Cognitive Psychology (3)
Prerequisite: Psychology 105 and 310 or consent of instructor. An introduction to theories of cognitive processing in humans as applied to the problems of memory, language, and perception with special emphasis on the role of organization. Three hours each week.

417 Psychology of Learning (3)
Prerequisite: Psychology 105. Psychology 255 is suggested. A study of the basic facts related to the learning process. The effects of reinforcement extinction, generalization, and discrimination are considered as well as other phenomena of the learning process. Three hours each week.

420 Developmental Psychology (3)
Prerequisite: Psychology 105; Psychology 255 is suggested. A study of the principles and processes underlying the changes occurring during the normal development of humans and non-humans. Motor, social and intellectual development are emphasized. Three hours each week.

425 Psychological Tests and Measurements (3)
Prerequisite: Psychology 105. Introduction to theory and practice of test construction; survey of commonly used tests with emphasis on their construction, administration, interpretation, and application. Three hours each week.

446 Psychology of Personality (3)
Prerequisite: Psychology 105. A study of the basic facts concerning the structure, organization, and adjustmental mechanisms of personality. Three hours each week.

447 Psychopathology (3)
Prerequisite: Psychology 105. The study of behavioral pathology. Emphasis will be placed on the underlying factors of the neuroses, psychoses, and character disorders. Three hours each week.

449 Psychology of Death (3)
Prerequisite: Psychology 105. A study of psychological aspects of death and dying. Man's conceptualization of and behavior toward his own demise will be studied. Special emphasis will be placed on the behavioral context surrounding terminal illness, suicide, and homicide. Psychological aspects of gerontology will also be considered. Three hours each week.

450 Introduction to Counseling (3)
Prerequisite: Psychology 446 and 447. The major historical and contemporary theories of counseling including Freudian, client-centered, behavioristic and existential will be reviewed. Examination of each theory will be accompanied by demonstration and role-play situations in which the elements of each theory are explored. Three hours each week.

451 Supervised Counseling Practice (3)
Prerequisite: Psychology 450 and consent of instructor. This course will provide for supervision of student practice in application of counseling skills and techniques in a variety of in-service situations. The student will participate in supervised counseling experiences in local social service agencies. The emphasis will be upon practice of skills combined with regular consultation with the supervisor. May be repeated once for additional credit. Three hours each week.

452 Ethical Principles in Psychology (1)
Prerequisite: Permission of the instructor. A study of the ethical considerations involved in counseling and psychotherapy, psychological testing, and the use of human subjects in research. Three hours each week.

455 Psychological Experimentation (3)
Prerequisite: Psychology 255 and consent of instructor. Practical experi-

ence in the design and implementation of psychological experimentation. Each student will design and conduct an individual research project and a laboratory exercise for students in Psychology 255. Three hours each week.

456 Psysiological Psychology (3)
Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of the anatomy of the nervous system and the roles which various neural structures play in the control of behavior. Three hours each week.

457 Animal Behavior (3)
Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of animal behavior including the traditional areas of ethology and comparative psychology. Primary emphasis is upon the similarities and differences in the behaviors of animals occupying various phylogenetic positions. Three hours each week.

465 Community Psychology (3)
Prerequisite: Psychology 105. Psychology 365 is suggested. A study of the contributions of psychology to the understanding of an individual's behavior as influenced by his community environment. A major consideration will be given to the problems associated with community mental health. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Topical Seminar (1-3)
Prerequisite: Psychology 105 and consent of instructor. Discussion of selected topics in psychology. May be repeated for additional credit.

499 Honors Work in Psychology (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

SOCIOLOGY AND ANTHROPOLOGY

Dr. Scalf, *chairman*. Mrs. Blanks, Mr. Fields, Mr. Herrin, Mr. Larsen, Mr. Sharp, Dr. Sieverdes, Mrs. Tiblier, Mr. Wasson.

ANTHROPOLOGY

105 Introduction to Anthropology (3)

Introduction to the physical, archaeological, linguistic, and ethnological fields of anthropology; biological and cultural evolution of man. Three hours each week.

203 Principles of Kinship (3)
Prerequisite: Anthropology 105. This course deals with the structures and functions of kinship in a variety of cultures as a background for the study of complex cultural patterns. Three hours each week.

205 (Sociology 205) Human Societies (3)
Prerequisite: Anthropology 105. The evolution of man and societies. Societal evolution as seen as an extension of and/or parallel to biological

evolution. A movement from simple to complex forms of societies as analyzed from an emphasis upon sustenance activity as the primary organizing principle of societies. Three hours each week.

207 Archaeology (3)
The concepts and aims of archaeology, its history as a scientific discipline and its present role in the social sciences. Attention to basic principles in field work and to recent advances. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of instructor.

302 Economic Anthropology (3)
Prerequisite: Anthropology 105. Primitive tribal and peasant economic systems are viewed through the use of case studies and theoretical materials. The aim of the course is to present an overview of the field by reviewing the major theoretical positions (and controversies). It further provides a brief critique of the development of economic anthropological theory. Three hours each week.

304 Indians of South America (3)
Prerequisite: Anthropology 105. This course will acquaint the student with human populations and their adaptations to the South American continent. Approximately equal emphasis is given to lowland tribes and Andean cultures. Both of these will be studied from an historic perspective spanning the entire period of man's presence on the continent. Three hours each week.

305 Indians of North America (3)
Survey of North American Indian tribes; subsistence patterns reflected through cultural adaptation to various ecotypes; archaeological analysis of the interplay of Aisan and Mexican influences; restructuring of North American Indian cultures as a consequence of European influence. Three hours each week.

307 New World Archaeology (3)
Prerequisite: Anthropology 105. The entry of man into North America and South America will be examined using archaeological data. Other topics will include the post-Pleistocene expansion of big game hunters, woodland hunter-gatherers, and the development of agricultural societies. Diffusion versus independent invention will be considered. Three hours each week.

308 Marine Archaeology: Methods and Theory (3)
Prerequisite: Anthropology 105, Anthropology 207 and diver certification. This course is designed to introduce the archaeologist to the field of underwater archaeology. Both classroom and field sessions will be required. Theory will be derived from the existing literature. The role of the archaeologist as an underwater scientist will be emphasized. Three hours each week.

309 Environment and Archaeology (3)
Prerequisite: Anthropology 207. An ecological framework for the study of prehistoric human populations is presented. Man-land relationships during prehistoric times are examined, as is the role of natural environment as a contributing factor in cultural and biological evolution. Three hours each week.

310 Marine Archaeology: Field Practicum (3-6)
Prerequisite: Anthropology 105, Anthropology 207, Anthropology 308 and

diver certification (Anthropology 308 and Anthropology 310 may be taken concurrently). Practical field methods will be taught utilizing actual underwater prehistoric or historic sites. Survey techniques, excavation, record-keeping and preservation will be stressed and adapted to a submarine environment.

311 Field Methods in Archaeology (3-6)
Prerequisite: Anthropology 207. Practical field methods of land-site archaeology will be taught through the excavation of local archaeological sites. Scientific excavation, sampling, and preservation techniques will be presented as the basic tools of the archaeologist.

350 Maritime Anthropology (3)
Prerequisite: Anthropology 105. A cross-cultural comparison of past and present maritime populations from selected parts of the world. Emphasis will be placed upon the natural environmental settings and related cultural adaptations. Both intra- and inter-group interaction will be stressed as well. Three hours each week.

405 Development of Man (3)
Prerequisite: Anthropology 105 and Biology 101. Introduction to the fossil evidence of hominid phylogeny; survey of selected significant prehistoric hominid finds and associated lithic industries; some explanatory hypotheses relating to genetic and ecological variables as determinant factors in man's development. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-6)
Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

499 Honors Work in Anthropology (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

CRIMINAL JUSTICE

245 Police in a Changing Society (3)
Prerequisite: Sociology 105. Evolution of law enforcement systems and practices through the ages. Emphasis will be placed on the effects of societal changes and on survey of comparative police systems. Three hours each week.

255 The Criminal Justice System (3)
Prerequisite: Sociology 105. A study of the various components of North Carolina's criminal justice system will include an analysis of the structure and function of law enforcement agencies, the court system, corrections and probation systems. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of instructor.

301 (Social Work 301) Methods and Techniques of Social Welfare and Rehabilitation Services (3)
Prerequisite: Sociology 105. An introduction to the basic principles, methods and techniques which form the basis for social work practice

with special emphasis on the professional use of self and the utilization of systematic processes of problem solving in the delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

306 (Social Work 306) Evaluative Methods for Service Agencies (3)
Prerequisite: Sociology 301, Mathamtics 265 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

356 Critical Issues in Criminal Justice (3)
Prerequisite: Sociology 255. This course will be a study of crime, lawlessness, civil unrest and violence as issues relating to the administration of criminal justice, focusing on the current role of the system, the problems arising from attempting to fill that role, and some role modification that will improve the general operation of the criminal justice system. Three hours each week.

395 Corrections (3)
Prerequisite: Criminal Justice 255. An historical review of societal patterns of punishment, an in-depth analysis of the diversity of alternatives to incarceration, and an examination of practical data related to counselor-counselee relationships in correctional settings are course objectives. Three hours each week.

405 Criminal Justice Administration (3)
Prerequisite: Criminal Justice 255, 356 and consent of instructor. A concentration on management techniques for each administrative segment of criminal justice: the police, the courts, prosecution/defense, probation, parole and corrections. It will offer alternative models, based on a systems approach to function and role, that relate each criminal justice sub-system administratively to the others. Three hours each week.

490 Criminal Justice Practicum (3-6)
Prerequisite: Junior or senior standing and consent of instructor. A course designed to acquaint students with the criminal justice agencies of all governmental levels. Observation of agency programs and activities in applied criminal justice are integrated with formalized knowledge gained in the classroom to provide the student with beginning knowledge, skills and attitudes consistent with his career plans.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-4)
Prerequisite: Junior or senior standing and consent of instructor. Consideration of special topics not dealt with in regular courses.

SOCIAL WORK

235 Introduction to Social Work (3)
History, methods, and practice in professional social work in the United States. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of instructor.

301 (Criminal Justice 301) Methods and Techniques of Social Welfare and Rehabilitation Services (3)
Prerequisite: Sociology 105. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and the utilization of systematic processes of problem solving in the delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

302 Social Work Methods II (3)
Prerequisite: Sociology 235 and Sociology 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problem-solving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected human service agency is required. Three hours each week.

303 Social Welfare and Rehabilitation: Services, Policies, Issues and Programs (3)
Prerequisite: Sociology 235. A problematic approach to situations that affect policies, issues, programs and services in social work and rehabilitation services. An attempt to aid the student in developing an analytical and critical understanding as he explores the motivation and methods by which social work and rehabilitation services policies and programs are being developed by our society and other countries. Three hours each week.

306 (Criminal Justice 306) Evaluative Methods for Service Agencies (3)
Prerequisite: Sociology 301, Mathematics 265 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

336 Suicidology and Crisis Intervention (3)
Prerequisite: Sociology 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventive techniques that are appropriate for individuals, groups and communities are explored. A common theoretical frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crisis, as well as abnormal and accidental crises. Three hours each week.

396 Community Organization and Social Practice (3)
Prerequisite: Sociology 105. The course analyzes a variety of forms of community organization practice, focusing on definition of goals, values, roles and skills required for professional practice. Community organization is viewed as a process of bringing about desirable changes in com-

munity life. Community needs and resources available to meet these needs are studied. Three hours each week.

490 Social Work Practicum (3-6)
Prerequisite: Sociology 105, Social Work 235, 301 and 303. A field experience in selected social agencies designed to permit student application and integration of cognitive and affectual learning with a formalized service system. Learning experiences and content are designed to gain and demonstrate beginning knowledge, attitudes and skills which are consistent with the concepts of social practice. The student will participate in a two hour weekly seminar.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-4)
Prerequisite: Sociology 105, Social Work 235 and consent of instructor. A consideration of special topics not dealt with in regular courses.

SOCIOLOGY

105 Introduction to Sociology (3)
Science of human society emphasizing physical basis of society, culture, collective behavior, population, and social institutions. Analytical approach stressed. Three hours each week.

205 (Anthropology 205) Human Societies (3)
Prerequisite: Sociology 105. The evolution of man and societies. Societal evolution as seen as an extension of and/or parallel to biological evolution. A movement from simple to complex as analyzed from a focus upon sustenance activity as the primary organizing principle of societies. Three hours each week.

215 Modern Social Problems (3)
Social controls and the sociology of revolutionary change. Problems related to race, family, crime, delinquency, and social disorganization. Three hours each week.

225 Collective Behavior and Social Movements (3)
Prerequisite: Sociology 105. Analysis of social behavior breaking with existing patterns and expectations, such as riots, crowds, revolution, and social movements. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of instructor.

305 Population (3)
Prerequisite: Sociology 105. A study of the changes in size, composition, distribution of population and the dynamics underlying them. Three hours each week.

315 Urban Sociology (3)
Prerequisite: Sociology 105. Analysis of the history and development, social organization, and problems of the city. Three hours each week.

316 Human Ecology (3)
Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal

evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

325 American Minority Relations (3)
Prerequisite: Sociology 105. Analysis of inter-group relationships; basis of conflict, stratification and assimilation; nature, consequence, and sources of discrimination and prejudice; minority reactions to dominance. Three hours each week.

335 The Sociology of Deviant Behavior (3)
Prerequisite: Sociology 105. The analysis of certain behavior in terms of deviations from norms; the application of sociological and psychological concepts and theory to deviant behavior, and the critical evaluation of nonsociological research and theories. Three hours each week.

345 The Family (3)
Prerequisite: Sociology 105. Origin and development of the family as a social institution from an historical and comparative approach; analysis of forms and functions of the family: socialization, mate selection, procreation. Three hours each week.

346 Sociology of Religion (3)
Prerequisite: Sociology 105. An analysis of the structure, function and process of religion, emphasizing the reciprocal relation of religion and culture and religious differentiation and institutionalization. Three hours each week.

350 Sex Roles in Society (3)
Prerequisite: Sociology 105. The differentiation of both ascribed and achieved roles in modern society based on the variable of sex of the individual, conditions which serve to maintain or to weaken the normative patterns, and consideration of some of the consequences of differentiation. The effects of sex-role socialization on political, occupational, and educational behavior, with emphasis placed on stability and change. Three hours each week.

355 Criminology (3)
Prerequisite: Sociology 105. The nature, variation and causes of crime are studied as aspects of the American culture. Three hours each week.

365 (Psychology 365) Social Psychology (3)
Prerequisite: Sociology 105 or Psychology 205. The study of behavior as a function of group situations. Three hours each week.

366 Social Change (3)
Prerequisite: Sociology 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change, direction of change, mechanism of change, and planning of change. Three hours each week.

375 Juvenile Delinquency (3)
Prerequisite: Sociology 105. The analysis and description of the problem of juvenile delinquency as it exists in a changing contemporary society. Three hours each week.

385 The Community (3)
Prerequisite: Sociology 105. A study of social organization and process

in modern communities with stratification, power structure and disorganization being accentuated. Three hours each week.

386 Occupations and Social Structure (3)
Prerequisite: Sociology 105 and three additional hours in Sociology or Economics. An analysis of the place of work in society. This course examines occupational structures as the primary link between persons and the larger society. Topics to be included are the growth and development of occupational structure, occupations and technological change, occupations and status, occupations and organizational complexity, and other system features which influence or are influenced by the occupational structure. Three hours each week.

405 Methods I: Theory Construction and Non-Parametric Statistics (3)
Prerequisite: Sociology 105, Statistics 265, Computer Science 205. The student will be introduced to the process of constructing theories relative to social relations. There will also be a segment of time used to introduce those non-parametric statistics that are most often used with either nominal or ordinal data. Three hours each week.

406 Methods II: Survey and Analysis (3)
Prerequisite: Sociology 405. The core of this course will be built around an actual analysis experience giving the student an opportunity to use the tools acquired in Sociology 405 and related courses. Three hours each week.

415 Social Classes (3)
Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Study of one of the basic structures in society, its nature and functions. Also provides socio-psychological discussion of American society from the perspective of the stratification system, with consideration of the life style and value system of each major social class category. Three hours each week.

445 Complex Organizations (3)
Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Examination of theory and research on structure and processes of large scale formal organizations in Western society; consideration of industrial-commercial governmental, religious, military, political and educational organizations. Three hours each week.

455 Social Theory (3)
Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. A review of the significant trends of development in sociological theory with emphasis on the relationship of theory to research. Three hours each week.

490 Senior Project (3)
Prerequisite: Sociology 105, 405, 406 and senior status. A personal study of a segment of the community will be undertaken by each major. There will be an analytical paper written after actual data has been acquired preferably through a personal confrontation within an institutional setting. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-6)
Prerequisite: Sociology 105 and consent of instructor. Consideration of special topics not regularly dealt with in regular courses.

499 Honors Work in Sociology (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

SOCIAL WORK

(See Sociology and Anthropology)

SPANISH

(See Modern Languages)

STATISTICS

(See Mathematical Sciences)

THE FACULTY

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AT WILMINGTON

THE FACULTY

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B.E.D., North Carolina State University.

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Charles Lewis Wells, *Adjunct Professor of Medical Technology*
B.S., Allegheny College; M.D., University of Pittsburgh.

E. M. West, *Professor of Business Administration*
B.S., Virginia Polytechnic Institute; M.A., East Carolina University; Ed.D., Duke University.

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A.B., Duke University; M.S., Florida State University.

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Davis Alan Young, *Associate Professor of Geology*
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Victor A. Zullo, *Professor of Geography and Geology*
B.A., M.A., Ph.D., University of California at Berkeley.

RETIRED FACULTY

*Anne Barksdale, M.S., (1957-1966) *Assistant Professor of Business*

*Adrian D. Hurst, M.A., (1947-1968) *Associate Professor of Mathematics*

*Mildred Johnson, M.A., (1947-1960) *Professor of Social Sciences*

*Margaret Shannon Morton, M.A., (1947-1965) *Professor of English*

*William Madison Randall, Ph.D., (1951-1968) *President*

J. Paul Reynolds, Ph.D., (1964-1971) *Vice Chancellor for Academic Affairs*

* Emeritus status

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UNC-W

THE UNIVERSITY OF NORTH CAROLINA at WILMINGTON

CATALOGUE ISSUE
1976

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BULLETIN 28
CATALOGUE ISSUE 1976
Announcements 1976-77

The University of North Carolina at Wilmington 1976

WILMINGTON, NORTH CAROLINA 28401

1976

JANUARY

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JANUARY

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CALENDAR OF EVENTS
1976-77

FALL SEMESTER 1976

August 26-27, Thursday-Friday	Faculty Orientation
August 29, Sunday	Dormitory opens
August 30, Monday	Orientation/Registration
August 31, Tuesday	Registration—late registration fee of $7.50 charged for all registering after this date
September 1, Wednesday	Classes begin
September 6, Monday	Holiday
September 8, Wednesday	Last day for registration
September 8, Wednesday	Last day to add a class or to drop a class without a grade
September 30, Thursday	Faculty meeting, 4:00 p.m.
November 5, Friday	Graduation application deadline for Spring 1977
November 18, Thursday	Faculty meeting, 4:00 p.m.
November 23, Tuesday	Thanksgiving vacation begins, 10:30 p.m.
November 29, Monday	Thanksgiving vacation ends, 8:30 a.m.
November 30, Tuesday	Last day to withdraw with WP or WF
December 10, Friday	Last day of classes
December 13-14, Monday-Tuesday	Final Exams
December 15, Wednesday	Reading day
December 16-17, Thursday-Friday	Final Exams
December 20-21, Monday-Tuesday	Final Exams
December 21, Tuesday	Fall Semester ends

SPRING SEMESTER 1977

January 9, Sunday	Dormitory opens
January 10-11, Monday, Tuesday	Registration—late registration fee of $7.50 charged for all registering after January 11.
January 12, Wednesday	Classes begin
January 18, Tuesday	Last day for registration
January 18, Tuesday	Last day to add a class or drop a class without a grade
February 3, Thursday	Faculty meeting, 4:00 p.m.
February 25, Friday	Spring holidays begin, 10:30 p.m.
March 7, Monday	Spring holidays end, 8:30 a.m.
March 31, Thursday	Graduation application deadline for Summer 1977
April 7, Thursday	Easter vacation begins, 10:30 p.m.
April 12, Tuesday	Easter vacation ends, 8:30 a.m.
April 19, Tuesday	Last day to withdraw with WP or WF
April 21, Thursday	Faculty meeting, 4:00 p.m.
April 29, Friday	Last day of classes
May 2-6, Monday-Friday	Final Examinations
May 9-10, Monday-Tuesday	Final Examinations
May 10, Tuesday	Spring Semester ends
May 15, Sunday	Commencement

Summer Session-Dates to be announced through Summer Bulletin

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ADMINISTRATIVE OFFICERS AND STAFF OF THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

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L. Murrie Lee, M.A.Ed., *Assistant Director of Admissions*
Douglas L. Johnson, B.S., *Assistant to the Director of Admissions*
Carolyn R. Cogdell, M.A.Ed., *Admissions Counselor*
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W. Frank Bowen, B.A., *Assistant Director of Continuing Education*
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Ralph H. Parker, M.Ed., *Dean of Students*
Charles W. King, M.A., *Assistant Dean of Students for Residence Life*
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Linda Jasinski, F.N.P., *University Nurse*
Catherine Van Gellow, F.N.P., *University Nurse*

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Grace W. Rhodes, *Bursar*
Charles L. Sanders, III, *Purchasing Officer*
Catherine D. Kiger, *Personnel Officer*
Davis B. Lumpkin, P.E., *Plant Engineer*
Dallas Cato, *Maintenance Supervisor*
Brantley J. Dillon, *Chief of Security Force*
James K. Clark, B.S., *Director of Auxiliary Services and Grants and Contracts*
Alfred Barry, B.S., *Safety Officer*

SUPPORTING SERVICES

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Robert E. Fry, M.S.P.H., *Director of Institutional Research*
Tyrone Rowell, M.A., *Director of Development*
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UNC-W

THE UNIVERSITY

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RICHARD H. ROBINSON, JR., A.B., LL.B., *Assistant to the President*
ROBERT W. WILLIAMS, A.B., M.A., Ph.D., *Associate Vice President—Academic Affairs*

Sixteen Constituent Institutions

The University of North Carolina was chartered in 1789 and opened its doors to students at its Chapel Hill campus in 1795. Throughout most of its history, it has been governed by a Board of Trustees chosen by the Legislature and presided over by the Governor. During the period 1917-1972, the Board consisted of one hundred elected members and a varying number of *ex-officio* members.

By act of the General Assembly of 1931, without change of name, it was merged with The North Carolina College for Women at Greensboro and The North Carolina State College of Agriculture and Engineering at Raleigh to form a multicampus institution designated The University of North Carolina.

In 1963 the General Assembly changed the name of the campus at Chapel Hill to The University of North Carolina at Chapel Hill

and that at Greensboro to The University of North Carolina at Greensboro and, in 1965, the name of the campus at Raleigh was changed to North Carolina State University at Raleigh.

Charlotte College was added as The University of North Carolina at Charlotte in 1965, and, in 1969, Asheville-Biltmore College and Wilmington College became The University of North Carolina at Asheville and The University of North Carolina at Wilmington respectively.

A revision of the North Carolina State Constitution adopted in November 1970 included the following: "The General Assembly shall maintain a public system of higher education, comprising The University of North Carolina and such other institutions of higher education as the General Assembly may deem wise. The General Assembly shall provide for the selection of trustees of The University of North Carolina. . . ." In slightly different language, this provision had been in the Constitution since 1868.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state-supported senior institutions into the University as follows: Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, Pembroke State University, Western Carolina University, and Winston-Salem State University. This merger, which resulted in a statewide multi-campus university of sixteen constituent institutions, became effective on July 1, 1972.

The constitutionally authorized Board of Trustees was designated the Board of Governors, and the number was reduced to thirty-two members elected by the General Assembly, with authority to choose their own chairman and other officers. The Board is "responsible for the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." Each constituent institution, however, has its own board of trustees of thirteen members, eight of whom are appointed by the Board of Governors, four by the Governor, and one of whom, the elected president of the student body, serves *ex officio*. The principal powers of each institutional board are exercised under a delegation from the Board of Governors.

Each institution has its own faculty and student body, and each is headed by a chancellor as its chief administrative officer. Unified general policy and appropriate allocation of function are effected by the Board of Governors and by the President with the assistance of other administrative officers of the University. The General Administration office is located in Chapel Hill.

The chancellors of the constituent institutions are responsible to the President as the chief administrative and executive officer of The University of North Carolina.

BOARD OF GOVERNORS
THE UNIVERSITY OF NORTH CAROLINA

William A. Dees, Jr., Chairman
T. Worth Coltrane, Vice Chairman

Louis T. Randolph, Secretary

Class of 1977

Victor S. Bryant, Durham
George Watts Hill, Durham
Wallace N. Hyde, Asheville
Robert B. Jordan, III, Mount Gilead
Mrs. John McCain, Wilson
Reginald F. McCoy, Laurinburg
Maceo A. Sloan, Durham
Thomas J. White, Jr., Kinston

Class of 1979

Julius L. Chambers, Charlotte
Dr. Hugh S. Daniel, Jr., Waynesville
William A. Dees, Jr., Goldsboro
Jacob H. Froelich, Jr., High Point
William A. Johnson, Lillington
E. B. Turner, Lumberton
Mrs. George D. Wilson, Fayetteville

Class of 1981

Hugh Cannon, Raleigh
Philip G. Carson, Asheville
T. Worth Coltrane, Asheboro
Luther H. Hodges, Jr., Charlotte
Mrs. Hugh Morton, Linville
J. J. Sansom, Jr., Raleigh
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George M. Wood, Camden

Class of 1983

Irwin Belk, Charlotte
Wayne Corpening, Winston-Salem
Daniel C. Gunter, Gastonia
Mrs. Howard Holderness, Greensboro
John R. Jordan, Jr., Raleigh
J. Aaron Prevost, Hazelwood
Louis T. Randolph, Washington
Harley Shuford, Jr., Hickory

THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

The University of North Carolina at Wilmington was founded in 1947 as Wilmington College, a locally supported and governed institution, to provide the youth and adults of New Hanover County and southeastern North Carolina an opportunity for two years of university parallel study, semiprofessional training and vocational-technical education at moderate expense. From these beginnings and goals and through a series of transformations with ever widening programs and aspirations, the institution has become a part of The University of North Carolina, whose purpose, resources and direction it shares.

The university at Wilmington is a community of scholars dedicated to teaching, learning and creating, and to extending knowledge through research. Its objective is to stimulate a creative spirit, to fire imagination, to promote curiosity and to teach students to make valid judgments concerning activities and values as well as to think with clarity and to communicate with fluency and accuracy in the realms of empirical facts and abstract ideas.

The programs offered by the university are designed to serve a broad spectrum of abilities and interests in the liberal arts and sciences. To implement these programs, most of which lead to the baccalaureate degree, the university provides undergraduate instruction and research opportunities in fine arts, humanities, natural sciences, social sciences, teacher education and other professional disciplines. Moreover, the geographical location of the university at Wilmington, the only campus of The University of North Carolina adjacent to the ocean, in a region rich in history and yet modern in industrial development, provides a challenge to be innovative. As the university progresses, its special environment as well as the needs of its constituency will play a major part in the development in scope and depth of established programs and in the initiation of new ones.

HISTORY AND BACKGROUND

Education on the college level first came to Wilmington in 1946 when a college center was established under the direction of the North Carolina College Conference and under the administration of the Directorate of Extension of The University of North Carolina at Chapel Hill. The center offered courses on the freshman level to some 250 students during the academic year 1946-47. In 1947 a tax levy was approved by the citizens of New Hanover County, and Wilmington College was brought into existence as a county institution under the control of the New Hanover County Board of

Education. In 1948 Wilmington College was officially accredited by the North Carolina College Conference and became a member of the American Association of Junior Colleges. In 1952 the institution was accredited as a junior college by the Southern Association of Colleges and Schools.

In 1958 New Hanover County voted to place the college under the Community College Act of the State of North Carolina. By virtue of this vote, the college became a part of the state system of higher education, and control passed from the New Hanover County Board of Education to a board of twelve trustees, eight of whom were appointed locally and four of whom were appointed by the governor of the state. At the same time, the requirements for admission and graduation and the general academic standards of the college came under the supervision of the North Carolina Board of Higher Education, and the college began to receive an appropriation from the state for operating expenses in addition to the local tax.

On July 1, 1963, by an act of the General Assembly of North Carolina, Wilmington College became a senior college with a four-year curriculum, authorized to offer the bachelor's degree.

By vote of the Board of Trustees of The University of North Carolina in late 1968, with subsequent approval by the North Carolina Board of Higher Education, and by an act of the General Assembly of North Carolina in 1969, Wilmington College became, on July 1, 1969, The University of North Carolina at Wilmington. It, and the institution in Asheville previously designated as Asheville-Biltmore College, became the fifth and sixth campuses of The University of North Carolina.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state-supported senior institutions into the university. Thus The University of North Carolina now comprises sixteen institutions.

ACADEMIC STANDING

The University of North Carolina at Wilmington is accredited by the Southern Association of Colleges and Schools and the North Carolina Association of Colleges and Universities. It also holds membership in the Council for Advancement and Support of Education, the American Council on Education and the American Placement Council, and is on the list of schools approved by the American Chemical Society.

THE CAMPUS

The University of North Carolina at Wilmington is located in the southeastern part of the state on a 600-acre tract on State Highway 132 midway between the Cape Fear River and the Atlantic Ocean. The city of Wilmington is situated on the east bank of the Cape Fear River and is about 15 miles from Carolina Beach and 10 miles from Wrightsville Beach. From a village of 1,689 people in 1800, Wilmington has developed into a city of more than 60,000 population. Several main highways lead into the city, and it is also readily accessible by plane.

Ocean breezes and the nearness of the Gulf Stream give Wilmington a delightful year-round climate, and the area's proximity to the ocean provides unlimited recreational opportunities.

The spacious, well-landscaped campus was first occupied by the university in 1961, with three buildings in use. Today there are 17 buildings, plus athletic fields and ample parking areas. A professionally engineered master plan will guide future expansion to insure harmony between the buildings and their surroundings.

BUILDINGS

The buildings on the campus are of modified Georgian architecture. All academic buildings, as well as the cafeteria and residence hall, are completely air-conditioned.

The Edwin A. Alderman Administration Building, named in honor of a native Wilmingtonian who served as president of The University of North Carolina, The University of Virginia and Tulane University, houses administrative offices, the Department of History, classrooms and a number of faculty offices.

Hoggard Hall, the academic building named in honor of Dr. John T. Hoggard, second president of Wilmington College, contains classrooms, the Departments of Nursing, Political Science, and Sociology and Anthropology laboratories, the computing center and faculty and staff offices.

The Hinton James Student Services Building contains student lounges, an assembly room, offices for student organizations and the university bookstore. It was named for a New Hanover County resident who was the first student to enroll at The University of North Carolina.

Hanover Hall, the physical education building, provides modern facilities for the athletic activities of both men and women students, including a large playing floor with rollaway bleachers, a second athletic activity floor, offices, locker rooms and showers, and special gymnastic equipment. It has a seating capacity of 2,000 for basketball and similar spectator events.

The Raiford G. Trask Health and Physical Education Building will provide the campus with a 6,000 seat coliseum as well as an olympic size swimming pool and a separate diving tank. Construction is scheduled for completion by the fall of 1977.

Kenan Hall, named in honor of the late Mrs. Sarah Graham Kenan of Wilmington, is occupied by the Departments of Art, English, Modern Languages, Music, and Philosophy and Religion. It contains classrooms, faculty offices, language laboratories, art and music studios, the music library, an electronic music studio, dramatic workshops and the S.R.O. Theatre.

The Chemistry-Physics Building houses the Departments of Chemistry, Mathematical Sciences, and Physics. It is equipped with classrooms, faculty and staff offices, teaching auditoriums, and modern, well-equipped laboratories for the physical sciences.

The Arnold Kimsey King Education and Psychology Building contains an auditorium with a seating capacity of 191, classrooms, faculty offices, a curriculum laboratory and a modern demonstration classroom and laboratory for occupancy by an elementary grade.

The University Cafeteria, opened in 1971, provides space for food services for both students and faculty and contains the most modern food service equipment.

The Sarah Graham Kenan Memorial Auditorium, a gift from the Sarah Graham Kenan Foundation, has a seating capacity of 1,000 persons. The auditorium is also equipped for use as a theatre and contains the offices and seminar rooms for the Department of Drama and Speech.

The Edmond R. Galloway Residence Hall, opened in 1971, provides housing for 400 students. The Belk Residence Hall, scheduled to open in June 1976, will accommodate 200 students.

The Isaac Bear Business and Economics Building, completed in 1972, contains classrooms, a computer laboratory, and faculty offices for the Department of Business and Economics.

The Marine Science Building was completed in 1974. It houses the Departments of Biology and Earth Sciences and contains classrooms and laboratories.

The William Madison Randall Library, completed in January 1969, is named for the President Emeritus of Wilmington College. It has a seating capacity of more than 600 readers and space for 200,000 volumes. The library collection contains over 125,000 volumes shelved on open stacks according to the Library of Congress classification system. Rare and unique items are housed in the Helen Hagan Rare Book Room. Some 1,300 periodicals are regularly received, and extensive back files are maintained in bound volumes or microform. Coin operated machines for copying microforms and printed materials are available.

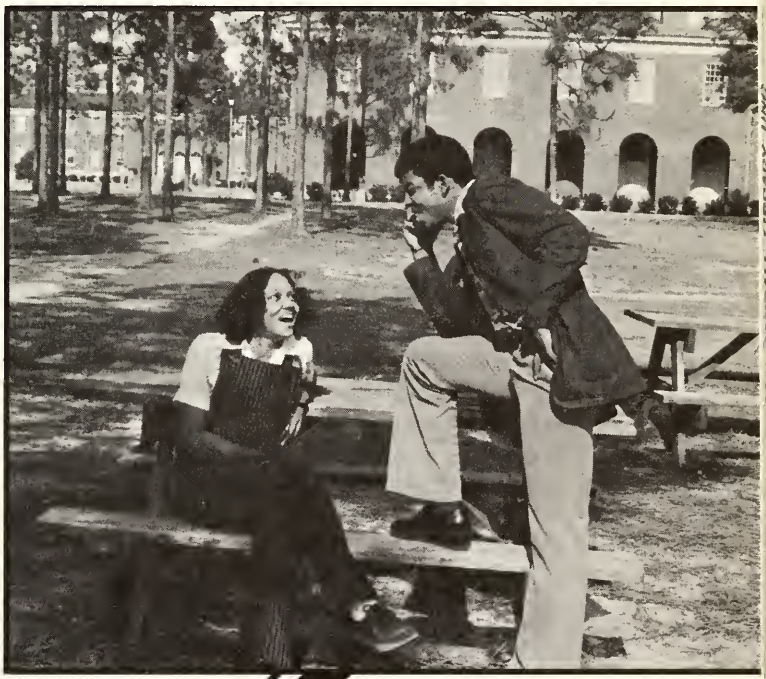
The library is a partial depository for United States government publications, and the collection of documents now consists of approximately 65,000 items.

An audio-center with 18 listening positions and a wide variety of recordings is available for class assignments and personal enjoyment. Two seminar rooms and a conference room are available for meetings of small groups, and a 70-seat auditorium is equipped for all types of audio-visual use. Lockers are provided for students doing honors work.

A librarian trained in reference service is always available to provide information and reader guidance services to students and faculty.

UNC-W

ADMISSIONS



ADMISSIONS

The University of North Carolina at Wilmington seeks to admit students with the intellectual ability to perform in the collegiate community. However, the student must have the motivation and the determination to avail himself of the learning experiences that will be beneficial to him if he is to attain both academic and personal enrichment. As a state-supported institution, the university is aware of its obligation to provide an educational opportunity to all qualified applicants who will benefit from the program of study offered on the Wilmington campus.

Applicants may enter the university at the beginning of the fall and spring semesters and at the beginning of each summer term. Applications for fall semester should be filed by August 1; applications for spring semester should be filed by December 15. Students desiring to enroll in summer school should make application previous to the summer session registration period. The academic qualifications of each applicant are carefully reviewed by the admissions personnel in a conscientious effort to admit those students who have the potential for further achievement.

ADMISSIONS-FRESHMEN

The requirements for admission to The University of North Carolina at Wilmington are:

(1) Graduation from an accredited high school
(2) A satisfactory score on the Scholastic Aptitude Test (SAT)
(3) An overall "C" average on all work attempted in grades 9-12
(4) The following specific high school units:
    4 units in English
    *2 units in one foreign language
    2 units in Mathematics (Algebra I and Geometry or Algebra II)
    2 units in Social Studies
    1 unit in Science
    *Students who meet all minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and 102 before they are graduated with the baccalaureate degree.

Students failing to meet the above minimum requirements, but who can show other evidence of ability to perform satisfactorily at the college level, will be considered on an individual basis for conditional admission.

APPLICATION PROCEDURE FOR FRESHMEN

Students wishing to enroll are required to comply with the following procedures:

1. Submit a completed application form. A $10.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Have the secondary school officials submit an official transcript of secondary school work and your rank in class if available. The transcript must be sent directly to the Office of Admissions, The University of North Carolina at Wilmington, P. O. Box 3725, Wilmington North Carolina 28401.

3. Take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board. Applicants must request that their scores on this test be sent to the Office of Admissions. Because of deadlines for filing application to take the College Board tests, the student must make his arrangements well in advance of the testing date so that his application may be received in Princeton or Berkeley by the closing date. Applicants are accepted on either junior or senior year SAT scores. For information about the SAT, contact your secondary school guidance counselor or write or call College Board ATP, P. O. Box 592, Princeton, New Jersey 08540; (609) 921-9023. Students who live in the Western, Southwestern or Pacific Coast states should write or call College Board ATP, Box 1025, Berkeley, California 94701; (415) 849-0950.

It is important that high school credits and test scores reach the university early so that all correspondence relating to the application may be completed before the opening of the semester in which the student expects to register.

ADMISSIONS-TRANSFER

A student wishing to transfer to The University of North Carolina at Wilmington from another institution must meet the following requirements for admission: (1) He must be eligible to return to the institution last attended and (2) He must have attained at least a "C" average (4.0 system) based on all courses attempted at all institutions attended. Transfer students with less than 24 semester hours of transferable credit must also meet the freshman entrance requirements.

A student seeking admission by transfer of credits is required to have all transcripts of previous college or university records forwarded to the Director of Admissions by the Registrar at each institution he has attended. Even though no transfer of credit may be involved, all previous college or university experience must be certified by transcripts or records of attendance.

Students wishing to transfer are required to comply with the following procedures:

1. Submit a completed application form. A $10.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Submit a completed University Questionnaire for transfer students. This Questionnaire is included in the transfer admissions packet.

3. Have an official transcript from each college or university attended, including summer school, submitted. It is the applicant's responsibility to request that each institution attended send an official transcript directly to the Office of Admissions. If transfer applicants have completed fewer than 24 semester hours of transferable credit, they must also submit an official secondary school transcript and an official copy of the scores of the Scholastic Aptitude Test of the College Entrance Examination Board. These scores may be included on the official secondary school transcript.

ADMISSIONS-ASSOCIATE DEGREE PROGRAM IN NURSING

Admission to the Associate Degree Program in Nursing requires, in addition to acceptance to the University, an interview with and approval by the Department of Nursing.

NOTIFICATION OF ACCEPTANCE

Applicants are notified of action taken on their application as soon as possible. However, final action cannot be taken until all required information is in the Office of Admissions.

ADMISSIONS-FORMER STUDENTS

Former UNC-W students desiring to return to the university should apply to the Director of Admissions for readmission prior to August 1 or December 15. A former student who has attended a college or university since his last enrollment at UNC-W is required to submit official transcripts of credit from such institutions before he can be considered for readmission.

THE THREE-YEAR RULE

Any UNC-Wilmington student who has been out of school for at least three years and has not attended any other institution since leaving UNC-W is eligible to reenter under the "three-year rule."

The student who elects to have the "three-year rule" applied will have neither a quality point deficit to overcome, nor hours of credit for those courses in which "D" grades were attained. Only courses in which a grade of "C" or better was earned will be counted toward graduation. Nevertheless, this option will not alter the student's original academic record. The student's quality point average will begin at the time he resumes his studies. He

will be required to maintain a "C" average on a semester basis to be eligible to continue. Degree requirements will be the requirements in effect at the time his education is resumed.

The student must exercise his option concerning the three-year rule at the time he applies for admission to the University. Once the student has exercised his option, he may not later reverse it.

Any former student of an acredited college or university who has not attended school for at least three years may apply to the Admissions and Academic Standards Committee for admission under the three-year rule.

APPLICATION DATES

All students applying for admission or readmission to the University of North Carolina at Wilmington must file their Application for Admission or their Reenrollment Form by August 1 if enrolling for the fall semester and by December 15 if enrolling for the spring semester.

ADMISSIONS-SUMMER VISITORS

During the summer session, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. Applicants from other colleges or universities should seek prior approval from their dean to take courses at The University of North Carolina at Wilmington. The university assumes no responsiblity in determining a student's course selection when such credits are to be transferred elsewhere. Enrollment by permission from another institution in no way obligates the university to continue one's enrollment at The University of North Carolina at Wilmington after the expiration of the permission period. Summer visitor applications and schedules are available in April of each year.

ADMISSIONS—SPECIAL HIGH SCHOOL STUDENTS

Selected high school seniors who wish to pursue an academic program on the collegiate level while attending high school may enroll at The University of North Carolina at Wilmington if they meet the qualifications for participation in this program. Because of distance this program is available primarily to students in the Wilmington area. Special applications for admission are available in the office of the high school counselor. Students may enter this program at the beginning of the fall, spring or summer term.

ADMISSIONS-NON-HIGH SCHOOL GRADUATES

A student 21 years of age or older and of high purpose who has not acquired a high school diploma may be approved to enroll in the university by achieving a satisfactory score on the SAT or on the recommendation of the Admissions and Standards Committee.

ADMISSIONS-FOREIGN STUDENTS

The university welcomes admission inquiries from foreign students. The prospective student must present evidence that he is academically qualified for admission and present satisfactory test results on the Test of English as a Foreign Language (TOEFL) to indicate his English proficiency.

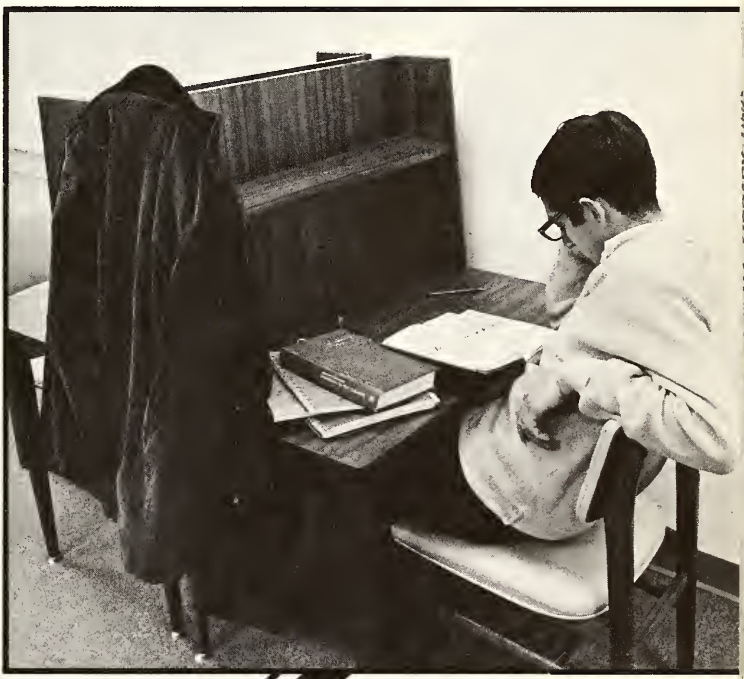
NONDISCRIMINATION POLICY

UNC-W is dedicated to equality of opportunity within its community. Accordingly, UNC-W does not practice or condone discrimination in any form against students, employees, or applicants on the ground of race, color, national origin, religion, sex, age, handicap or veteran status. UNC-W commits itself to positive action to secure equal opportunity regardless of those characteristics. UNC-W is covered by and supports the protection afforded by Title VI and VII of the Civil Rights Act and Title IX of the Education Amendment of 1972 Executive Order 11246 and the Vietnam Era Veteran's Readjustment Assistance Act of 1972. For information concerning these provisions, contact the appropriate compliance officer.

Any student who supplies false or misleading information or who conceals pertinent facts in order to enroll in The University of North Carolina at Wilmington will be subject to immediate dismissal from the university.

UNC-W

EXPENSES



EXPENSES

TUITION AND FEES

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

The Board of Trustees of the university reserves the right to change the charges for tuition, fees and the room and board rate at any time without prior notice.

Charges Per Semester:

	In-State Students	Out-of-State Students*
Tuition	$110.50	$ 950.00
Fees	96.50	96.50
Total	$207.00	$1046.50

Other Fees:

Application Fee (to accompany application, nonrefundable)	$10.00
Late Registration Fee (payable after scheduled dates)	7.50
Transcript Fee (after the first)	1.00
Private Music Fee: one half-hour per week	37.50
two half-hours per week	67.50
Graduation Fee	15.00

Students scheduling fewer than ten semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students
1	$ 37.00	$120.00
2	49.00	215.00
3	61.00	310.00
4	73.00	405.00
5	154.50	569.50
6	166.50	664.50
7	178.50	759.50
8	192.50	856.50
9	204.50	951.50

The privileges of students taking fewer than five hours per semester will be restricted to class attendance and use of the library.

*See information on residency at the end of this section.

ROOM AND BOARD

Two plans are available for room and board, one providing meals five days per week and the other providing meals seven days per week. The rates per semester are:

Room and Board: 5 days—15 meals $600.00

Room and Board: 7 days—21 meals $625.00

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

Those interested in obtaining information should contact:

Office of Student Affairs
The University of North Carolina at Wilmington
Post Office Box 3725
Wilmington, North Carolina 28401

A $50 deposit must accompany the housing application.

SUMMER SESSION

Summer session tuition, fees, refund policy, and room and board rates will be announced in the summer session bulletin.

REFUNDS

A student who officially withdraws from the university on or before the last day of the registration period will receive a refund of the amount paid less a registration fee of $7.50.

After the registration period the student will be charged 1/10 of the semester charges for each week in attendance plus a registration fee of $7.50. No refund will be made after the end of the ninth week.

Room and board agreements are effective for the full academic year. Agreements made subsequent to the beginning of the Fall Semester remain in effect until the close of the Spring Semester. Room and board deposit and charges will not be refunded except as provided for below:

a. Agreements may be cancelled *without* forfeiture of deposit before July 1. Written notice of cancellation must be furnished the Vice Chancellor for Student Affairs.

b. Agreements may be cancelled *with* forfeiture of deposit between July 1 and the date on which the dormitory opens for Fall Semester. Deposit and room rent for the Fall Semester will not be refunded after that date.

c. Agreements may be cancelled before the date on which the dormitory opens for Spring Semester. Deposit and room rent for the Spring Semester will not be refunded after that date.

d. Agreements entered into for the Spring Semester only may be cancelled without forteiture of deposit before December 1 and with forfeiture of deposit between December 1 and the date on which the dormitory opens for Spring Semester. Written notice of cancellation must be furnished the Vice Chancellor for Student Affairs.

e. A pro-rata refund of dining charges will be made to students who officially withdraw from the university.

No degree, diploma, transcript of credits, or grades will be furnished a student until all financial obligations to the university, other than student loans, have been paid. All previously incurred expenses and accounts at the university must be paid in full before a student may re-enter at the beginning of any semester.

RESIDENCE STATUS FOR TUITION PAYMENT

1. General: The tuition charge for legal residents of North Carolina is less than for nonresidents. To qualify for in-state tuition, a legal resident must have maintained his domicile in North Carolina for at least the twelve months next preceding the date of first enrollment or reenrollment in an institution of higher education in this state. Student status in an institution of higher education in this state shall not constitute eligibility for residence to qualify said student for in-state tuition.

2. Minors: A minor is any person who has not reached the age of eighteen years. The legal residence of a person under eighteen years of age at the time of his first enrollment in an institution of higher education in this state is that of his parents, surviving parent, or legal guardian. In cases where parents are divorced or legally separated, the legal residence of the father will control unless custody of the minor has been awarded by court to the mother or to a legal guardian other than a parent. No claim of residence in North Carolina based upon residence of a guardian in North Carolina will be considered if either parent is living unless the action of the court appointing the guardian antedates the student's first enrollment in a North Carolina institution of higher education by at least twelve months.

3. Adults: An adult is any person who has reached the age of eighteen years. Persons eighteen or more years of age at the time of first enrollment in an institution of higher education are responsible for establishing their own domicile. Persons reaching the

age of eighteen, whose parents are and have been domiciled in North Carolina for at least the preceding twelve months, retain North Carolina residence for tuition payment purposes until domicile in North Carolina is abandoned. If North Carolina residence is abandoned by an adult, maintenance of North Carolina domicile for twelve months as a non-student is required to regain in-state status for tuition payment purposes.

4. Married Students: The legal residence of a wife follows that of her husband, except that a woman currently enrolled as an in-state student in an institution of higher education may continue as a resident even though she marries a nonresident. If the husband is a nonresident and separation or divorce occurs, the woman may qualify for in-state tuition after establishing her domicile in North Carolina for at least twelve months as a non-student.

5. Military Personnel: No person shall lose his in-state resident status by serving in the Armed Forces outside of the State of North Carolina. A member of the Armed Forces may obtain in-state residence status for himself, his spouse, or his children after maintaining his domicile in North Carolina for at least the twelve months next preceding his or their enrollment or re-enrollment in an institution of higher education in this state.

6. Aliens: Aliens lawfully admitted to the United States for permanent residence may establish North Carolina residence in the same manner as any other nonresident.

7. Property and Taxes: Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for the in-state tuition rate.

8. Change of Status: The residence status of any student is determined as of the time of his first enrollment in an institution of higher education in North Carolina except:

(a) In the case of a nonresident student at the time of first enrollment who has subsequently maintained domicile as a non-student for at least twelve consecutive months and

(b) In the case of a resident who abandons his legal residence in North Carolina.

In either case, the appropriate tuition rate will become effective at the beginning of the first subsequent term enrolled.

9. Responsibility of Students: Any student or prospective student in doubt concerning his residence status must bear the responsibility for securing a ruling by stating his case in writing to the Admissions Office. The student who, due to subsequent events, becomes eligible for a change in classification, whether from out-of-state to in-state or the reverse, has the responsibility of immediately informing the Office of Admissions of this circumstance in writing. Failure to give complete and correct informa-

tion regarding residence constitutes grounds for disciplinary action.

10. Appeals of Rulings of Admissions Officers on Residence Status: Any student or prospective student may appeal the ruling of the admissions officer in writing to the chancellor of the institution. The chancellor may use any officer or committee which he deems appropriate in review of the appeal. Appeal of the chancellor's ruling may be made to the president of the university, such appeals to be filed with the chancellor and forwarded by him to the president.

UNC-W

FINANCIAL AID

FINANCIAL AID

PHILOSOPHY AND PURPOSE

The primary purpose of financial aid at the University of North Carolina at Wilmington is to provide financial assistance to students, who without such aid, would be unable to attend college. UNC-W makes financial aid awards on the assumption that the student's family will make a maximum effort to assist the student with college expenses. The family is expected to contribute according to its income and assets, and the student is expected to contribute from savings and summer employment. It is the responsibility of the Financial Aid Office to help the student fulfill any remaining financial need after the family has contributed the amount that it could reasonably be expected to contribute. UNC-W feels that no student should be denied a college education because of lack of financial resources, and the major objective of the Financial Aid Office is the achievement of this goal.

TYPES OF AID AVAILABLE

There are three major classifications of student financial aid: Grants and scholarships, work, and loans. A grant is a gift from the government, the institution, or an individual, but a loan must be repaid. The following is a listing of the major financial aid programs available to students attending UNC-W.

GRANT AND SCHOLARSHIP PROGRAMS

The basic education opportunity grant program provides direct grants from the government to the undergraduate student for educational expenses. The student must apply directly to the Department of Health, Education, and Welfare for a grant. If HEW certifies that a student is to receive a grant, it is the responsibility of the institution that the student is attending to make certain that payment is made.

At UNC-W, Basic Grants range in value from $200 to $1400 per year.

To be eligible for a basic grant a student must not have been enrolled in a post-high school educational institution before April 1, 1973, and must be a citizen or resident of the U. S. All eligible students are required to apply for a BEOG before being considered for aid offered by UNC-W.

The supplemental educational opportunity grant program provides aid to students who have an exceptional financial need. To receive an SEOG a student must apply to the Financial Aid Office at UNC-W.

At UNC-W, Supplemental Grants range in value from $200 to $1,000 per year.

To be eligible for a grant a student must be enrolled for at least 12 hours, and must be a citizen or resident of the U. S.

UNC-W tuition scholarships provide needy and worthy students with grants equal to the cost of tuition at UNC-W. To receive one of these scholarships a student must apply to the Financial Aid Office.

The Athletic Department, the Music Department, Speech and Drama Department, *Atlantis,* the *Fledgling,* and the *Seahawk* also offer tuition scholarships. Inquiries should be directed to these organizations.

To be eligible a student must be enrolled for at least 12 hours and show academic or creative promise. Upperclassmen must maintain a 2.0 average in order to renew these scholarships.

Several privately funded scholarships are available through the Financial Aid Office. These include the *Eliza Collins Scholarship,* and the *Belk-Beery Scholarships, Lucille Murchison Marvin Foundation Scholarship,* the *Rotary Club of Wilmington Scholarships,* and the *Sue McCall Boone Scholarship.* All inquiries regarding these scholarships should be directed to the Financial Aid Office.

These scholarships range in value from $200 to $500 per year.

WORK PROGRAMS

The college work-study program provides funds to employ needy students on the UNC-W campus. Students are paid at an hourly rate equal to the minimum wage, and may work up to a maximum of 20 hours per week. Applications for Work-Study should be made to the Financial Aid Office.

To be eligible for Work-Study a student must be enrolled for at least six hours and be a citizen or resident of the U. S.

The work-assistance program provides funds to employ students on the UNC-W campus. However, there is no need factor involved in the selection of students for this program. Students interested in the program should direct inquiries to the departments in which they would prefer to work.

The plan assuring college education (PACE) provides jobs near the homes of North Carolina students. It assures eligible Work-Study students of summer employment with the understanding that 80% of the earnings must be saved for college expenses.

LOAN PROGRAMS

The national direct student loan program provides needy students with long-term, low interest loans for educational expenses.

Under this program the student borrows money to finance a college education, and repays the loan after graduation. Repayment begins 9 months after graduation, and the borrower may take up to 10 years to repay the loan. The interest rate of 3% does not begin accruing until the repayment period begins. All or part of the loan may be cancelled for teaching or military service. To receive a NDSL a student must apply to the Financial Aid Office.

National Direct Student Loans range from $100 to $1250 per year at UNC-W.

To be eligible for an NDSL a student must be enrolled for at least six hours, and be a citizen or resident of the U. S.

The federally insured loan program (College Foundation, Inc.) provides students from middle income families with long-term, low interest loans for post-secondary educational expenses. Under this program the student borrows from College Foundation, Inc., and repays the loan after graduation. The repayment period begins nine months after graduation, and the borrower may take up to ten years to repay the loan. The interest rate is 7% and begins accruing when the repayment period begins. Applications for Federally Insured Loans should be made directly to College Foundation, Inc.

The maximum amount that a student may borrow under the program is $2,000 per academic year.

To be eligible for this program a student must be enrolled for at least 12 hours and be a North Carolina resident.

The North Carolina prospective teachers scholarship—loan program provides assistance to prospective North Carolina teachers. The program provides a $900 per year loan, which will be cancelled if the student teaches in North Carolina public schools after graduation. The program is administered by the Department of Public Instruction, and inquiries regarding the program should be directed to them or the Financial Aid Office.

To be eligible for their program a student must be enrolled for at least 12 hours and be a North Carolina resident.

OFFICE OF VETERANS AFFAIRS

The Office of Veterans Affairs (OVA) exists to provide educational assistance to veterans and/or their dependents enrolled at The University of North Carolina at Wilmington. The OVA is concerned with the recruitment of veterans into the university and insuring that they successfully complete their educational pro-

grams. The OVA provides peer and professional counseling, remedial services, tutorial services, and community outreach services. This office also acts to coordinate existing campus services to best serve the needs of the veteran students.

In addition to these services, there is a VA Educational Benefits Representative on campus three days a week. His primary duties consist of facilitating the receipt of G. I. bill checks and serving as a direct contact between the veteran-student and the VA Regional Office in Winston-Salem. The OVA is located in Room 109 in the Alderman Building.

UNC-W

STUDENT AFFAIRS

STUDENT AFFAIRS

COUNSELING

Counseling psychologists provide service to students seeking assistance in achieving maximum personal growth, effective educational, vocational and social relationships and healthy personal adjustment. These services include counseling, assessment and evaluation of achievement, personality, mental aptitude and vocational interests. There is no charge for these services. Counseling Center sessions and files are confidential.

Concerns and decisions which are commonly discussed by students who come to the Counseling Center include:

(1) Choice of a major. Although some students declare a major at the beginning of their college career, others may want to discuss their initial choice of a major or the possibilities for changing majors.

(2) Choice of career. Going hand-in-hand with choices concerning a major, yet often of more specific concern, are student concerns related to decision about vocational choice.

(3) Academic problems. Some students may benefit from a discussion of study habits and skills.

(4) Personal problems. Situations may arise in which a student needs greater understanding of self and/or others as this pertains to problems at home, misunderstandings with roommate, dating problems or other such interpersonal concerns.

PLACEMENT SERVICES

The university maintains placement services which coordinate and plan campus interviews with representatives seeking graduates for positions in business, industry, government, and other agencies. The placement of teachers is handled by the education department. Seniors are urged to register with the Placement Office if they wish assistance in seeking permanent employment.

Listings of summer work and part-time employment during the academic year are available through this service. No fee is charged for registering, and there is no commission from those who obtain a position through these services.

STUDENT HOUSING

The university has residence facilities for approximately 300 men and 300 women in two modern, conveniently located dormi-

tories. All rooms are air-conditioned and furnished, and laundry facilities are available. Resident students of the dormitory are required to take their meals in the university cafeteria under either a five-day or a seven-day plan.

FOOD SERVICE

The university operates a modern, air-conditioned cafeteria building. Hot meals are served on the second floor and a snack area is located on the first floor. Service is on a cash basis for non-boarding students.

STUDENT HEALTH SERVICE

UNC-Wilmington provides a student Health Service Center which is located adjacent to the main lobby area of the residence hall. The center has the most modern medical equipment available for the treatment of minor illness or injury. The Health Service Center is open five days a week and a physician is on call at night and on weekends. THIS SERVICE IS PAID FOR BY STUDENT FEES AND IS INTENDED TO COVER ONLY MINOR ILLNESS OR INJURY.

STUDENT HEALTH INSURANCE

It is strongly recommended that students who are not covered for major medical expenses (serious injuries due to accidents or hospitalization) under their family health and accident insurance plan contact the Student Affairs Office for information relative to the student health insurance plan offered at a nominal cost through the University.

UNC-W

STUDENT LIFE AND ACTIVITIES

ACTIVITIES

Students at The University of North Carolina at Wilmington involve themselves in a wide range of extracurricular activities, ranging from cultural pursuits to athletic competition to publications.

ATHLETICS

The university holds membership in two athletic associations: The National Collegiate Athletic Association and The National Association of Intercollegiate Athletics.

Varsity intercollegiate teams are fielded in basketball, baseball, soccer, tennis and golf. In addition, an intramural sports program is provided for the student body. The program is based broadly on competitive and recreational activities, and participation is voluntary.

Women's intercollegiate teams compete in basketball, volleyball and tennis.

PUBLICATIONS

Students are involved in the writing and editing of several university publications, while others are published by the university for the benefit of students and alumni.

The Seahawk, the student newspaper, is published weekly. Its editorial staff is composed entirely of students.

The Fledgling, the student-produced yearbook, contains the usual features of a college annual.

The Atlantis, a literary magazine, is published by the students.

The Student Handbook is published as a guide to life at the university. It acquaints the student with the institution's rules and regulations.

The University of North Carolina at Wilmington Bulletin is issued annually. Its purpose is to provide information about the university—its programs, its progress and its function in the educational system.

FINE ARTS-LECTURE SERIES

The student Fine Arts-Lecture Committee makes programs of interest and cultural significance available to the student body and the community.

UNIVERSITY INSTRUMENTAL ENSEMBLES

The University of North Carolina at Wilmington Wind Ensemble is organized each semester to provide instrumental music experience for those students who desire it. Membership is open to any student who has had instrumental experience, with the approval of the director; and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit. Participation in either a vocal or an instrumental organization is required of all music majors.

The University Wind Ensemble and its smaller ensembles regularly provide music for university functions, civic and church groups, and radio and television.

The University Wind Ensemble presents at least two concerts a year and participates in the large, joint stage productions of the music and drama departments.

Students are also invited to participate in the *UNC-W/Community Orchestra,* which rehearses on the campus.

Faculty and Student Recitals and Special Senior Recitals are presented by the music department free of charge and are open to the public as well as to all students.

The Music Department also maintains an Electronic Music Studio.

UNIVERSITY VOCAL ENSEMBLES

The University of North Carolina at Wilmington Concert Choir is organized each semester to provide vocal musical experience for those students who desire it. Membership is open to any student in the university, with the approval of the director, and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit. All music majors are required to participate in either a vocal or an instrumental group.

The University Concert Choir and small ensemble, *The Chamber Singers,* regularly provide music for university functions, appear on radio and television, and act as ambassadors from the university at a wide spectrum of community functions.

The UNC-W Concert Choir's yearly activities have included at least two on-campus concerts and an extensive tour during the spring holidays. On occasion the choir has participated in large, joint stage productions of opera and musical comedies with the drama department.

THE UNIVERSITY THEATRE

The University Theatre is a student oriented theatre dedicated to the continuing development of all theatre practitioners. It strives to produce a total theatrical experience to support the educational, creative, and recreational potentials of a campus-based theatre.

Two major productions are presented each semester, with student productions presented on demand. Participation is not limited to dramatic art students, but is open to all university personnel and community residents.

S.R.O. STRAW-HAT THEATRE

The S.R.O. Straw-Hat Theatre, an institution-sponsored organization, operates as the artistic and cultural outlet during the summer months.

Initiated during the summer of 1968, a summer stock company is brought to the campus to present seven productions in a seven-week period, approximately from June 24 through August 10. Try-outs are held about June 4 for two nights and are open to all students of UNC-W and residents within the area.

Since its inception, it has presented Broadway, classic, original and musical plays. This program exposes students of UNC-W and other branches of the consolidated university to the unique educational experience of working under summer stock and professional conditions.

DEBATE TEAM

The University Debate Team participates in a number of tournaments each year, giving students experience in research, argumentation and public speaking. The team is a member of the National Forensic Association, and topics chosen by the association are debated by collegiate teams nationally. Membership is open to all students.

ART EXHIBITIONS

Monthly exhibitions of paintings, sculpture and the graphic arts are held in the gallery-lobby of Kenan Hall. All exhibitions are open without charge to the public, and the exhibitions occasionally feature student art.

ORGANIZATIONS

A variety of social, academic, and service organizations serve to enhance student life at The University of North Carolina at Wilmington. National fraternities are established on the campus to recognize students for their leadership and service activities. Various departments in the university have locally and nationally organized groups to stimulate interest in specific areas and to develop professional attitudes. These groups maintain high scholastic standards.

STUDENT GOVERNMENT ASSOCIATION

The core of student life at the university is the Student Government Association. Officers are elected by the student body, and other representatives by classes within the student body.

The association is a democratic organization, permitting expression of student opinion, working for the best interests of the university and upholding a high standard of morals and conduct.

The Student Government Association charters all recognized clubs within the institution and supervises their organization and objectives. It is also responsible for the disbursement of approximately half of the student activity fee. This money supports the Student Government Association in its objectives and campus activities. The association is a member of the North Carolina Student Legislature, the National Entertainment Conference and the Union of Student Body Presidents in North Carolina.

THE SOCRATIC SOCIETY

The Socratic Society is an honorary scholastic society formed in 1968 to give special recognition to seniors of outstanding academic accomplishment. It is sponsored by faculty members who belong to the scholastic honorary fraternity Phi Beta Kappa.

Graduating seniors are elected to the society if they have attained an overall quality point average of better than 3.5 and are recommended by the faculty of the area in which they are concentrating.

STUDENT UNION PROGRAM BOARD

The Student Union Program Board is a group of students who concentrate on bringing low-cost, innovative programming to campus. A billiard exhibition and hoedown are examples of activities it has sponsored. Membership is open to any interested student.

FRATERNITIES

SOCIAL FRATERNITIES:
Delta Upsilon
Pi Kappa Phi
Tau Kappa Epsilon
SERVICE GROUPS:
Alpha Phi Omega
PROFESSIONAL FRATERNITIES:
Pi Mu Epsilon
Sigma Alpha Beta

CLUBS AND OTHER ORGANIZATIONS

Astronomy Club
B. Frank Hall Philosophy Club
Baptist Student Union
Biology Club
Business Club
Chemistry Club
Chess Club
Cuda of Wilmington (Diving)
Debate Team
English Club
French Club
History Club
Math Club
Motoburyu Karate Club
Physical Education Majors' Club
Political Action Club
Physics Club
Physics Honor Society
Psychology Club
Rowing Club
Sociology Club
Spanish Club
Student Art League
Student Music Educators National Conference
Student North Carolina Association of Educators
Student Nurses' Association
UNC-W Community Orchestra
UNC-W Veterans Association
Wantu Wazuri

WHO'S WHO AMONG STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES

The University of North Carolina at Wilmington participates in this national organization which lists in its annual directory outstanding campus leaders. Selection of the candidates is made by a nominating committee composed of faculty, administration and students.

HOGGARD MEDAL FOR ACHIEVEMENT

A medal, presented through the generosity of the late Dr. John T. Hoggard, is awarded annually to the graduating senior who, in the opinion of the faculty, has shown the most improvement during his years at the university.

MOST VALUABLE PLAYER AWARD

The Most Valuable Player Award is given each year to the basketball player who is considered by other players to be of greatest value to his team.

ALUMNI ASSOCIATION SCHOLASTIC ACHIEVEMENT AWARD

The Alumni Association of the University of North Carolina at Wilmington each year at commencement presents an award to the senior who has attained the highest academic average in his graduating class.

UNC-W

UNIVERSITY POLICIES

UNIVERSITY POLICIES

The filing of an *application for admission* shall be construed as both an evidence and a pledge that the applicant accepts the standards and regulations of The University of North Carolina at Wilmington and agrees to abide by them. Each student, by the act of registering, obligates himself to obey all rules and regulations of the university as stated in the student handbook, the university catalog and other university publications. The university reserves the right to ask for the withdrawal of any student who refuses to adhere to the standards of the institution.

STATEMENT OF UNIVERSITY POLICIES, PROCEDURES, AND DISCIPLINARY ACTIONS IN CASES OF DISRUPTION OF EDUCATIONAL PROCESS

ADOPTED BY THE BOARD OF TRUSTEES
OCTOBER 27, 1970

CHAPTER V OF *CODE PROVISIONS GOVERNING THE UNIVERSITY OF NORTH CAROLINA, BYLAWS OF THE BOARD OF TRUSTEES, AND DUTIES OF THE UNIVERSITY OFFICERS.*

Section 5-1. Policies Relating to Disruptive Conduct

The University of North Carolina has long honored the right of free discussion and expression, peaceful picketing and demonstrations, the right to petition and peaceably to assemble. That these rights are a part of the fabric of this institution is not questioned. They must remain secure. It is equally clear, however, that in a community of learning willful disruption of the educational process, destruction of property, and interference with the rights of other members of the community cannot be tolerated. Accordingly, it shall be the policy of the University to deal with any such disruption, destruction or interference promptly and effectively, but also fairly and impartially without regard to race, religion, sex or political beliefs.

Section 5-2. Definition of Disruptive Conduct

(a) Any faculty member (the term "faculty member", wherever used in this Chapter V, shall include regular faculty members, full-time instructors, lecturers, and all other persons exempt from the

North Carolina State Personnel System (Chapter 126 of the General Statutes as amended) who receive compensation for teaching, or other instructional functions, or research at the University), any graduate student engaged in the instructional program, or any student who, with the intent to obstruct or disrupt any normal operation or function of the University or any of its component institutions, engages, or incites others to engage, in individual or collective conduct which destroys or significantly damages any University property, or which impairs or threatens impairment of the physical well-being of any member of the University community, or which, because of its violent, forceful, threatening or intimidating nature or because it restrains freedom of lawful movement, otherwise prevents any member of the University community from conducting his normal activities within the University, shall be subject to prompt and appropriate disciplinary action, which may include suspension, expulsion, discharge or dismissal from the University.

The following, while not intended to be exclusive, illustrate the offenses encompassed herein, when done for the purpose of obstructing or disrupting any normal operation or function of the University or any of its component institutions: (1) occupation of any University building or part thereof with intent to deprive others of its normal use; (2) blocking the entrance or exit of any University building or corridor or room therein with intent to deprive others of lawful access to or from, or use of, said building or corridor or room; (3) setting fire to or by any other means destroying or substantially damaging any University building or property, or the property of others on University premises; (4) any possession or display of, or attempt or threat to use, for any unlawful purpose, any weapon, dangerous instrument, explosive, or inflammable material in any University building or on any University campus; (5) prevention of, or attempt to prevent by physical act, the attending, convening, continuation or orderly conduct of any University class or activity or of any lawful meeting or assembly in any University building or on any University campus; and (6) blocking normal pedestrian or vehicular traffic on or into any University campus.

(b) Any person engaged in the instructional program who fails or refuses to carry out validly assigned duties, with the intent to obstruct or disrupt any normal operation or function of the University or any of its component institutions, shall be subject to prompt and appropriate disciplinary action under this Chapter V if (but only if) his status is such that he is not subject to the provisions of Section 4-3 of Chapter IV.

Section 5-3. Responsibilities of the Chancellor

(a) When the Chancellor has cause to believe that any of the provisions of this Chapter V have been violated, he shall forthwith investigate or cause to be investigated the occurrence, and upon identification of the parties involved shall promptly determine whether any charge is to be made with respect thereto.

(b) If he decides that a charge is to be made, he shall, within thirty (30) days after he has information as to the identity of the alleged perpetrator of the offense but in no event more than twelve (12) months after the occurrence of the alleged offense, (i) refer the case to the appropriate existing University judicial body, or (ii) refer the matter to a Hearing Committee drawn from a previously selected Hearings Panel which, under this option, is required to implement action for violation of Section 5-2 (a) or (b) of this Chapter. If the case is referred to an existing University judicial body under (i) above, the procedural rules of that body shall be followed, and subsections (c) through (f) below shall not be applicable. If the matter is referred to a Hearing Committee under (ii) above, the procedural rules prescribed in subsection (c) through (f) shall be followed.

(c) The accused shall be given written notice by personal service or registered mail, return receipt requested, stating:

(1) The specific violations of this Chapter V with which the accused is charged.

(2) The designated time and place of the hearing on the charge by the Hearing Committee, which time shall not be earlier than seven (7) nor later than ten (10) days following receipt of the notice.

(3) That the accused shall be entitled to the presumption of innocence until found guilty, the right to retain counsel, the right to present the testimony of witness and other evidence, the right to cross-examine all witnesses against him, the right to examine all documents and demonstrative evidence adverse to him, and the right to a transcript of the proceedings of the hearing.

(d) The Hearing Committee shall determine the guilt or innocence of the accused. If the person charged is found guilty, the Hearing Committee shall recommend to the Chancellor such discipline as said body determines to be appropriate. After considering such recommendation the Chancellor shall prescribe such discipline as he deems proper. In any event, whether the person is found guilty or not guilty, a written report shall be made by the Chancellor to the President within ten (10) days.

(e) Any person found guilty shall have ten (10) days after notice of such finding in which to appeal to the President of the University. Such an appeal if taken shall be upon the grounds set forth in Section 5-5.

(f) Any accused person who, without good cause, shall fail to appear at the time and place fixed for the hearing of his case by the Hearing Committee shall be suspended indefinitely or discharged from University employment.

(g) The Chancellor, unless so ordered or otherwise prevented by court, shall not be precluded from carrying out his duties under this Chapter V by reason of any pending action in any State or Federal court. Should a delay occur in prosecuting the charge against the accused because the accused or witnesses that may be necessary to a determination of the charge are involved in State or Federal court actions, the time limitations set forth in this Section 5-3 shall not apply.

(h) Conviction in any State or Federal court shall not preclude the University or any of its officers from exercising disciplinary action in any offense referred to in this Chapter V.

(i) Nothing contained in this Chapter V shall preclude the President or the Chancellor from taking any other steps, including injunctive relief or other legal action, which he may deem advisable to protect the best interests of the University.

Section 5-4. Aggravated Acts or Threatened Repetition of Acts

(a) The Chancellor of each of the component institutions of the University shall appoint an Emergency Consultative Panel which shall be composed of not less than three (3) nor more than five (5) faculty members and not less than three (3) nor more than five (5) students who shall be available to advise with the Chancellor in any emergency. No member of such Panel shall serve for more than one (1) year unless he be reappointed by the Chancellor. The Chancellor may make appointments, either temporary or for a full year, to fill any vacancies which may exist on the Panel.

(b) If, in the judgment of the Chancellor, there is clear and convincing evidence that a person has committed any of the acts prohibited under this Chapter V which, because of the aggravated character or probable repetition of such act or acts, necessitates immediate action to protect the University from substantial interference with any of its orderly operations or functions, or to prevent threats to or acts which endanger life or property, the Chancellor, with the concurrence as hereinafter provided of the Emergency Consultative Panel established pursuant to (a) above, may

forthwith suspend such person from the University and bar him from the University campus; provided, however, that in the event of such suspension the person suspended shall be given written notice of the reason for his suspension, either personally or by registered mail addressed to his last known addresses, and shall be afforded a prompt hearing, which, if requested, shall be commenced within ten (10) days of the suspension. Except for purposes of attending personally any hearings conducted under this Chapter V, the bar against the appearance of the accused on the University campus shall remain in effect until final judgment has been rendered in his case and all appellant proceedings have been concluded, unless such restriction is earlier lifted by written notice from the Chancellor.

(c) A quorum of the Emergency Consultative Panel provided for in (a) above shall consist of not less than four (4) of its members, and the required concurrence shall have been obtained if a majority of such quorum shall indicate their concurrence. The Chancellor shall meet personally with members of such Panel at the time he seeks concurrence, if it is feasible to do so. However, if the circumstances are such that the Chancellor deems it not to be feasible to personally assemble such members, then he may communicate with them or the required number of them individually by telephone or by such other means as he may choose to employ, in which event he may proceed as provided in (b) above after the required majority of such members have communicated their concurrence to him.

(d) In the Chancellor's absence or inability to act, the President may exercise the powers of the Chancellor specified in this Section 5-4 in the same manner and to the same extent as could the Chancellor but for such absence or inability to act.

Section 5-5. Right of Appeal

Any person found guilty of violating the provisions of this Chapter V by the Hearing Committee referred to in Section 5-3 shall have the right to appeal the finding and the discipline imposed upon him to the President of the University. Any such appeal shall be in writing, shall be based solely upon the record, and shall be limited to one or more of the following grounds:

(1) That the finding is not supported by substantial evidence;

(2) That a fair hearing was not accorded the accused; or

(3) That the discipline imposed was excessive or inappropriate.

It shall be the responsibility of the President to make prompt disposition of all such appeals, and his decision shall be rendered

within thirty (30) days after receipt of the complete record on appeal.

Section 5-6. No Amnesty

No administrative official, faculty member, or student of the University shall have authority to grant amnesty or to make any promise as to prosecution or non-prosecution in any court, State or Federal, or before any student, faculty, administrative, or Trustee committee to any person charged with or suspected of violating Section 5-2 (a) or (b) of these Bylaws.

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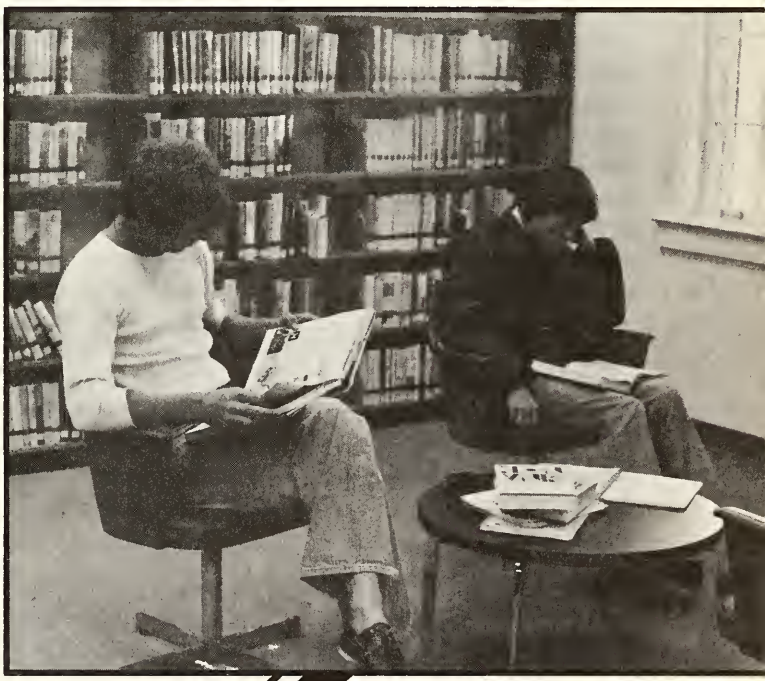
ACADEMIC REGULATIONS



ACADEMIC REGULATIONS AND PROCEDURES

ORIENTATION

All new students are required to attend an orientation program prior to the beginning of fall and spring semesters. Its purpose is to acquaint the student with opportunities and services at the university and to provide information needed for registration. Students are notified by mail of the time to report for the activities involved. Each freshman and transfer student is assigned to the department of his major interest for advising purposes.

REGISTRATION

Registration is limited to the first three days of the semester as specified in the university calendar of events. Classes may not be added after the last day of registration. Students may take 12 to 18 hours without restriction. Students who have a cumulative quality point average of 3.5 may be allowed, with special permission of the Vice Chancellor for Academic Affairs, to carry a maximum of 21 semester hours.

PRE-REGISTRATION

Pre-registration for those students currently enrolled is held each semester. Students who complete pre-registration and pay fees by the designated date are registered except in the event that they are declared academically ineligible at the end of the preceding semester.

TRANSFER OF CREDIT

Students transferring from a two-year institution will receive up to 62 semester hours of academic credit from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will be included in this total.

Students transferring from a four-year institution will receive up to a maximum of 92 semester hours from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will also be included in this total.

A maximum of 15 semester hours earned through correspondence may be applied toward graduation. Credit earned in another institution with a grade of "C" or better is accepted by the uni-

versity if the work transferred is comparable to offerings of The University of North Carolina at Wilmington. All grades earned at another institution are entered on the student's record exactly as earned. However, quality points earned at other institutions are not transferable and are not used in computing grade point averages except in the case of students applying to enter the teacher education program and of seniors graduating with honors and/or distinction.

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the Advanced Placement Program of the College Entrance Examination Board. A freshman who scores a grade of 5, 4, or 3 on the final examination in any field will receive appropriate college credit and advanced placement in that field. Students taking Advanced Placement Tests should have the test booklets and score reports sent to the Office of Admissions for evaluation concerning placement and credit. Individual departments will determine the specific courses for which credit will be given.

Students who are talented and well-prepared, but who have not participated in the Advanced Placement Program in high school, may apply to participating departments for the Advanced Placement Test or the College-Level Examination Program. Every department for which such tests are available will offer them upon request to any student during two (2) scheduled testing periods each year.

Students who have been exempted with credit given at an accredited college or university may be exempted with credit given at The University of North Carolina on an individual basis, as determined by the appropriate department chairman. Students who have been exempted without credit will not be given exemption or credit, but may elect to take one of the above examinations for possible exemption with credit. Exemptions may be granted on an individual basis by the Vice Chancellor for Academic Affairs upon recommendation of the appropriate department chairman in those cases in which a student has demonstrated his knowledge of a particular field by subsequent course work.

GRADES AND REPORTS

The University of North Carolina at Wilmington uses the quality point system and semester hour credit for calculating student

achievement. Grade symbols used are: A-excellent, B-good, C-average, D-passing, F-failure, I-incomplete, WP-withdrawal passing, WF-withdrawal failing.

Quality points are assigned as follows: 4 for a grade of "A"; 3 for a grade of "B"; 2 for a grade of "C"; 1 for a grade of "D." No quality points are given for a grade of "F", "WP" or "WF." The quality point ratio is determined by dividing the accumulated number of quality points earned by the accumulated number of semester hours attempted. Hours attempted for which a grade of "F" or "WF" has been assigned must be included in this calculation.

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed within one calendar year from the end of the semester in which the incomplete was given; otherwise, the "I" becomes an "F."

Grade reports are mailed to the student at the end of each semester.

Withdrawal

A student may withdraw from the university or from any course during the period of registration as stated in the catalogue without having a grade entered on his record.

From the end of registration through the fourteenth week a student may withdraw from the university or from any course and receive either a WP or WF. A grade of WP will not affect the average; a grade of WF counts as hours attempted and will affect the average. During the last three weeks of the semester if a student withdraws from the university or from a single course, he will receive a grade of F.

Any student who finds it necessary to withdraw from the university must give written notice of his intention to withdraw to the Office of the Vice Chancellor for Student Affairs. A student who fails to give written notice of his intention to withdraw will receive a grade of F in all courses.

REPEATING OF COURSES

A student who wishes to register for a course he has already taken and received credit for is required to have the approval of his major adviser, the department chairman, and the Vice Chancellor for Academic Affairs. These forms, which are available in the Registrar's Office, must be filed prior to registration for the course.

Auditing

The auditing of courses without credit is permitted by special permission of the registrar and of the instructor involved. Individuals not regularly enrolled as students in the university who wish to audit courses will be classified as special students and will be required to pay regular tuition and fees. University students in regular status will be permitted to audit courses and must pay the same tuition and fees as required for credit courses.

Class Attendance

Students are expected to be present at all regular class meetings and examinations for the courses in which they are registered. When a student is absent from classes to the extent that his success in the course is jeopardized, the instructor will inform in writing both the student and the appropriate dean. The number of absences allowed for a course will be determined by the individual instructor. It is the responsibility of the instructor, during the first week of class, to inform the students of his policies concerning class attendance and grading.

CLASSIFICATION OF STUDENTS

Students are classified as freshmen, sophomores, juniors, and seniors. Semester hours passed are used to determine these classifications. In order to graduate in 8 semesters, a student must average 15 to 16 hours per semester. The required number of hours passed for each classification is as follows:

Less than 26 semester hours credit—Freshman
From 27-58 semester hours credit—Sophomore
From 59-88 semester hours credit—Junior
More than 89 semester hours credit—Senior

DEANS LIST

At the close of each semester, regular students who are carrying a full load of 12 semester hours will be included in the Dean's List providing they have no grade lower than a "C" and providing the quality point average of all their grades for that semester is 3.0 or better.

TRANSCRIPTS

All students are entitled to one official transcript of their work without charge. Additional copies of the transcript at a cost of

$1.00 each may be obtained upon written request to the Office of the Registrar.

CHANGE OF NAME AND ADDRESS

It is the obligation of every student to notify the Office of the Registrar of any change in name or address.

INDEBTEDNESS

All indebtedness to the university must be satisfactorily settled before a diploma or transcript of record will be issued.

Retention, Dismissal and Readmission

Scholarship is both encouraged and required at The University of North Carolina at Wilmington. In order to remain at the university, all students must meet the quality point requirements as outlined below:

RETENTION CHART

Total Hours Attempted	Required Quality Point Average for Eligibility To Continue in the University
27-58	1.2
59-88	1.5
89 or more	1.8

Transfer students are placed in the above retention chart based on total hours attempted at all institutions attended. A transfer student's quality point average is computed only on work attempted through The University of North Carolina at Wilmington.

Students who do not meet the minimum quality point requirement for retention at the conclusion of the spring semester will be declared ineligible. These students will be allowed to make up deficiencies during the summer sessions of this University which immediately follow the spring semester in which they were declared ineligible. If such deficiencies are not removed in this manner, the student will be dismissed from the university for one semester and will be required to apply for readmission to any subsequent regular semester. Readmission, if allowed, is upon a probationary basis and such students must prove themselves by meeting the required quality point average as outlined in the chart above. However any reenrolled student who makes a 2.0 average or better during the first semester after his return, but who

fails to reduce his quality point deficiency to the required level, will be granted one additional semester in which to meet this requirement.

A second academic dismissal is final unless eligibility for continued residence or for readmission is restored by completion of sufficient work during summer sessions at The University of North Carolina at Wilmington.

Students who wish to restore their eligibility by taking courses at institutions other than The University of North Carolina at Wilmington may do so only with written permission of the Vice Chancellor for Academic Affairs.

Any full-time student who fails to pass at least three hours during any semester is subject to academic dismissal for one semester, regardless of his quality point standing. Freshmen, other than transfer students, must earn at least three semester hours of credit the first semester and six additional hours during the second semester of the first year. Any student who fails to meet these requirements will be subject to academic dismissal. These students must also meet the minimum quality point ratio on hours attempted listed in the above table if they wish to continue in the university.

REQUIREMENTS FOR GRADUATION

Students may qualify for the bachelor's degree by completing successfully (1) the basic studies requirements, (2) an approved course of study in an area of concentration, (3) a total of 124 semester hours of credit, and (4) a minimum quality point average of 2.0 The final 15 hours of credit required for the concentration must be completed at The University of North Carolina at Wilmington.

Before graduation, all seniors are invited to take the Aptitude Test of the Graduate Record Examination administered by the Educational Testing Service. The test is scheduled to be given on the Wilmington campus during the spring semester.

Graduation will be certified at the end of the term in which all academic requirements are completed, providing the final 30 hours of course credit are completed at the university at Wilmington.

Application for graduation must be filed in the Office of the Registrar on or before the dates specified in the university calendar.

In advising and registering students, the deans, the registrar and the faculty advisers try to make certain that every student who intends to graduate from the university registers for those courses which are required for a degree. The student, however, must assume the final responsibility for meeting the graduation requirements set forth in the university catalogue.

A student who enrolls at The University of North Carolina at Wilmington during any academic year and who earns credit for work done during the year may always graduate under the provisions of the catalogue under which he entered or under any subsequent catalogue, providing he completes all graduation requirements within six years of the expiration date of the catalogue chosen.

Participation in the graduation exercises is required of all eligible students unless excused by the Vice Chancellor for Student Affairs.

REQUIREMENTS FOR A DOUBLE MAJOR

A student may elect to major in two separate disciplines with the permission of the chairman of each of the departments and on the condition that the student meet all requirements for each major. The student who completes requirements for a double major will receive only one degree, but his record will indicate both majors at the time of his initial graduation.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree may receive a second baccalaureate degree if it is a different degree and a different major by fulfilling the following requirements:

(1) He must meet all the requirements for the second degree and major.
(2) He must complete a minimum of 30 hours in residence beyond the requirements for the first degree.

Degrees with Distinction

Three degrees with distinction are granted to graduating students based on all work attempted in meeting requirements for the degree as follows:

Cum Laude for an overall average of 3.50
Magna Cum Laude for an overall average of 3.70
Summa Cum Laude for an overall average of 3.90

Degrees with distinction are granted to transfer students under the following conditions:

1. The student must have the required overall average on all work attempted (including any transfer credit).
2. The student must have the required average on work completed at The University of North Carolina at Wilmington.

Students who complete the Senior Honors Program satisfactorily will be graduated "With Honors in" the discipline in which the special work is undertaken.

OFF-CAMPUS COURSES

Students who enroll in off-campus courses (extension, correspondence, or summer school) and wish to apply credit in these courses toward a degree at The University of North Carolina at Wilmington must obtain written approval of the major department and the Vice Chancellor for Academic Affairs before registering for the course. This permission must be filed in the Registrar's Office on forms supplied by that office.

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GENERAL DEGREE REQUIREMENTS

GENERAL DEGREE REQUIREMENTS

A primary objective of the curriculum is to provide an opportunity for every student to develop those skills in communication appropriate to the needs of modern society, and to acquire an understanding of the humanities, history, and the social and natural sciences as bases for cultural enjoyment and economic advancement. The basic requirements are designed to help meet this objective.

Basic Studies Requirements

To qualify for the bachelor's degree from The University of North Carolina at Wilmington, all students must meet the basic studies requirements as outlined below, and in fulfilling these requirements must acquire a total of forty-five semester hours less exemptions.

A. Basic Skills
   Courses taken to satisfy basic skills may not be used to satisfy divisional requirements. These course requirements may be waived if the student demonstrates by examination an appropriate proficiency in these basic skills areas:
   1. English Composition (6 hours)
      Required: English 101 and 102
      Composition (3-3)
   2. Mathematics (3 hours)
      Required: One of the following courses: Mathematics 101, 111, 115, 121, or any three-semester hour mathematics or statistics course above these levels except Mathematics 305.
   3. Physical Education (2 hours)
      Required: Physical Education 101 and 102 (1-1)

B. Divisional Requirements
   1. Humanities (9-15 hours)
      Required: A minimum of nine and a maximum of fifteen hours elected from at least two of the following areas:
      (a) English
          All courses except 245, 305, 306, 307, 308, and 345
      (b) History
          All courses listed in the catalogue
      (c) Modern Languages
          All courses listed in the catalogue

(d) Philosophy and Religion
All courses listed in the catalogue

2. Creative Arts (3-6 hours)
Required: A minimum of three and a maximum of six hours elected from the following areas:
(a) Art
Art 201, 202, 203, 306, and all beginning studio courses except 105, 106, and 107
(b) Drama and Speech
Drama and Speech 115, 215, 221, 222, 225, and 235
235
(c) Music Education
Music 101, 102, 105, 115, 116, 134, and 303
(d) English
English 307, 308 and 309
3. Natural Science and Mathematics (7-12 hours)
Required: A minimum of seven and a maximum of twelve hours including at least one course in a laboratory science elected from the following areas:
(a) Biology
All courses listed in the catalogue
(b) Chemistry
All courses except 107
(c) Mathematics
All Mathematics courses except 101, 111, 115, 121, and 305
(d) Physics
Physics 101, 102, 105, 106, 201, and 202
(e) Earth Sciences
All Earth Science courses except 230; geography 135, 335, 430 and 432;
All Geology courses
4. Social and Behavioral Sciences (3-9)
Required: A minimum of three and a maximum of nine hours elected from the following areas:
(a) Economics
All courses listed in the catalogue
(b) Geography
All courses except 135, 330, 335, 430, and 432
(c) Political Science
All courses listed in the catalogue
(d) Psychology
All courses listed in the catalogue
(e) Sociology-Anthropology
All courses listed in the catalogue

REQUIRED PHYSICAL EDUCATION

Students should expect to develop through participation in the physical education program activity skill, more efficient physiological function, and effective movement.

The university requires all students to complete with a passing grade two semesters of activity courses. This requirement for graduation must be fulfilled during the first two years unless postponement is authorized by the chairman of the Department of Physical Education.

The above requirement must also be completed by students transferring from other institutions who have not had its equivalent. A transfer student who has not completed this requirement and who is not enrolled for a sufficient number of semesters to fulfill the requirement shall enroll for physical education activity courses for each semester he is enrolled.

The university requires that all students furnish information concerning their current health status. This information is provided on the Report of Medical History form which is kept on file in the Student Health Services Center and is a prerequisite to (1) registration in any physical education activity course, (2) participation in any intramural activity, and (3) utilization of the physical education facilities for recreational purposes.

On the basis of this information the Student Health Services Center will place the student in one of the three categories listed below:

A. Unrestricted participation
B. Restricted participation
C. Temporarily restricted participation because of an injury or illness.

The requirement in physical education may be waived wholly or in part if requested by the student for any of the following reasons:

1. Upon recommendation of the university physician.
2. If the student enters the university at the age of 27 or older.
3. If he is a veteran with at least one continuous year of active military service.
4. Under exceptional circumstances on approval by the chairman of the Department of Physical Education.

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ACADEMIC PROGRAMS

ACADEMIC PROGRAMS

The University of North Carolina at Wilmington offers four-year programs leading to the Bachelor of Arts and the Bachelor of Science degrees and a two-year program leading to the Associate in Arts degree in Nursing. Professional programs include the James Walker Memorial Associate Degree Program in Nursing, the Medical Technology Program and the Teacher Education Program. Pre-Professional programs are offered in engineering, engineering operations, medicine, dentistry, forestry, law, pharmacy and agriculture. The university has developed special programs in marine sciences, marine archaeology, and environmental studies. It also has an Honors Program, a Resident Lectureship in Judaic Studies, and a Continuing Education Program.

DEGREES OFFERED

Areas of Concentration for the Bachelor of Arts Degree

Biology
Chemistry
Creative Arts:
  Art
  Drama
  Music
Computer Science
Earth Sciences
Economics
Elementary Education
English
Environmental Studies
French
History
Mathematics
Music Education
Philosophy and Religion
Physical Education
Physics
Political Science
Psychology
Social Science
Sociology
Spanish

Areas of Concentration for the Bachelor of Science Degree

Accounting
Biology
Business Administration
Chemistry
Computer Science
Economics
Marine Biology
Mathematics
Medical Technology
Physics

DEPARTMENTAL REQUIREMENTS

ACCOUNTING

(See Business and Economics)

ANTHROPOLOGY

(See Sociology and Anthropology)

ART

Requirements for a concentration in Creative Arts—Art for the B.A. degree: Art 111-112, 141-142, 143-144; 18 hours to be chosen from 2 studio areas, 1 hour of technical skills, 1-3 hours of senior exhibition; 6 hours of Art History (from 201, 202, 203, 306); 3 hours of history from each of the following areas: Drama & Speech 321, 322; Music; 6 hours to be chosen from practical or theoretical courses in Drama & Speech, or Music (histories not included). Electives chosen in consultation with advisor. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

BIOLOGY

Requirements for a concentration in Biology for the B.A. degree: Biology 105, 205, 206, 495, and a minimum of 23 hours chosen from Biology 235 and courses numbered above 299 of which at least 4 must be in advanced Botany and 4 in advanced Zoology offerings. Collateral requirements are Chemistry 101-102 and a minimum of 16 hours chosen from the listed courses in at least two of the following areas: Chemistry 311, 312, 333; Computer Science 105, 111, 115; Geography 432; Geology 105, 115, 205, 305; Mathematics 211, 212, 213, 225; Physics 101 or 105, 102, 201, 202, 260; Psychology 456, 457; Statistics 265. With the advance approval of the faculty advisor and the department chairman other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses at the 300-400 level.

Requirements for a concentration in Biology for the B.S. degree: Biology 105, 205, 206, 315 or 375, 335 with lab, 345 or 355 or 347 with or without lab, 366, 395, 495, and a minimum of 6 additional hours in courses numbered above 299. Of these 6 hours at least 3 must be in advanced Botany and 3 in advanced Zoology offerings. Collateral requirements are Chemistry 101-102, 311-312;

Physics 101-102 or 201-202; Mathematics 111-112 or 211-212. One or two years of French or German are highly recommended. A "C" or better average on Biology courses at the 300-400 level.

Requirements for a concentration in Marine Biology for the B.S. degree: Biology 105, 205, 206, 362, 366, 395, 495; a minimum of 7 hours selected from the following groups of courses with at least one course from each group: *Group I.* 345, 355, 347 with or without lab; *Group 2.* 315, 316, 335 with or without lab; a minimum of 8 hours selected from the following: 358, 365 or 485-2, 446 or 485-1, 458, 468. Collateral requirements are Chemistry 101-102; Physics 101-102 or 201-202; Mathematics 111-112 or 115-225 or a higher sequence; a minimum of 4 semester hours chosen from Chemistry 311, 312, 333, 335, Computer Science 111 and 115, Earth Sciences 230, Geography 430, 432, Geology 105, 305, 330, Statistics 265. A "C" or better average on Biology courses at the 300-400 level.

Requirements for a concentration in Medical Technology for the B.S. degree: Biology 215, 425, and a minimum of 8 semester hours chosen from the following: Biology 335, 345, 445, and appropriate topics in 495. Chemistry 101-102, and 311-312. Satisfactory completion of the twelve-month Medical Technology Program at an affiliated hospital. Courses in Physics, Biochemistry, Quantitative Analysis, Computer Science, and Statistics are also highly recommended. It is recommended that students complete the following courses in the freshman year: Mathematics 111-112, Chemistry 101-102, Physics 101-102, English 101-102, and Physical Education 101-102. A "C" or better average on courses taken at the university.

BUSINESS AND ECONOMICS

The Department of Business and Economics offers the B.S. degree with concentrations in Accounting, Business Administration, and Economics. The department participates in offering the B.A. degree with a concentration in Social Science by providing a discipline in Economics. The department further provides coordination and primary support for three years of study at UNC-Wilmington leading to a B.S. degree in Engineering Operations (Production Sequence) from North Carolina State University after completion of the final year in residence on the Raleigh campus.

Requirements for a concentration in Accounting for the B.S. degree:

(a) Courses common to concentrations in Accounting, Business Administration, and Economics: ACG 201-202, BUS 206, BUS 302, BUS 335, ECN 251, and ECN 252

(b) Business Administration core: BUS 310, BUS 355, BUS 453 or BUS 455, and ECN 336, and BUS 461-462

(c) ACG 301-302, ACG 305, ACG 308, ACG 407, and two courses in Accounting numbered above 399.

The Accounting concentration prepares for careers as accountants in commerce and industry, government, and/or public accounting. Students expecting to sit for the Certified Public Accountants (CPA) examination should take additional accounting courses numbered above 399. Students expecting to sit for the Certified Management Accountants (CMA) examination should take additional electives in management and finance.

Requirements for a concentration in Business Administration for the B.S. degree:

(a) Courses common to concentrations in Accounting, Business Administration, and Economics: ACG 201-202, BUS 206, BUS 335, ECN 251, and ECN 252

(b) Business Administration core: ACG 306, BUS 310, BUS 345, BUS 355, BUS 357, BUS 455, BUS 461-462, and ECN 336

(c) Four courses selected from accounting, business, and/or economics courses numbered above 299

The Business Administration concentration provides the academic preparation for management careers in product and service organizations and nonprofit institutions. The courses in (c) above may be selected from subject areas such as accounting, economics, finance, marketing, operations, and/or transportation, in order to provide a broader perspective of business operations, functions and problems, or to pursue a given function in greater depth.

Requirements for a Concentration in Economics for the B.S. degree:

(a) Courses common to concentrations in Accounting, Business Administration, and Economics: ACG 201-202, BUS 206, ECN 251, ECN 252, ECN 302, BUS 335

(b) Business Administration core: ACG 306, BUS 302, BUS 310, BUS 345, BUS 355, BUS 357, BUS 455, BUS 461-462, and ECN 336

(c) Three courses from accounting and/or business courses numbered above 299

(d) Three collateral elective courses selected upon approval of faculty advisor.

The Economics concentration prepares for careers which emphasize broad understanding of the operation of the economy and the proper choice of policies by both government and business enterprises.

Requirements for a concentration in Social Science with an emphasis in Economics for the B.A. degree:

(a) ECN 251, ECN 252, ECN 315, ECN 316, and at least three

additional courses in economics numbered above 299

(b) Additional requirements for a concentration in Social Science for the B.A. degree as described under Social Science.

A "C" or above average is required in all accounting, business and/or economics courses required in the concentrations for the B.S. degree. It is recommended that students complete the following courses in the freshman year: Mathematics 121-122 and English 101-102.

Students expecting to do graduate work in accounting, business administration, or economics are advised to complete a mathematical sequence through the calculus and to broaden their programs by electing courses in such areas as English, Mathematical Sciences, and the Social Sciences.

The joint program offered by the Department of Engineering Operations at North Carolina State University and The University of North Carolina at Wilmington allows a student to complete 90 semester hours of course work at UNC-Wilmington and 38 semester hours of course work at NCSU. Students interested in this program should contact the Chairman of the Department of Business and Economics at UNC-Wilmington or the Director, Engineering Operations Program, NCSU, Raleigh, North Carolina 27607.

CHEMISTRY

Requirements for a concentration in Chemistry for the B.A. degree:

Chemistry 101-102, 101-51, 102-51, 311-312, either 325 or 321 and 321-51, either 333 or 335, 355, 495, and 4 hours of advanced Chemistry, Mathematics 111-112 (or 115) and either 225 or 211, one of the Physics sequences, and two courses chosen from the following: advanced courses in Physics, advanced courses in Mathematics, and courses in Biology. A "C" or better average in Chemistry courses.

Requirements for a concentration in Chemistry for the B.S. degree:

Chemistry 101-102, 101-51, 102-51, 311-312, 311-91, 312-91, 321-322, 321-51, 322-51, either 333 or 335, 355, 435, 445, 491 (1 hour), 495, two of the following: CHM 415, 446, 465, or 491 (3 hours). Physics 201-202 and Mathematics 315. A "C" or better average in Chemistry courses. Students working for the B.S. degree should arrange their work so as to take Chemistry 321-322 in the junior year. Two years of German are recommended.

COMPUTER SCIENCE

(See Mathematical Sciences)

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA & SPEECH

Requirements for a concentration in Creative Arts—Drama for the B.A. degree:

D&S 115, 321, 322, 460, 461, 485; at least 13 other hours in Drama and Speech; three hours of history from each of the following areas: Art, Music; 6 additional hours to be chosen from either Art or Music (histories not included.) Electives chosen in consultation with advisor. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

EARTH SCIENCES

The Department of Earth Sciences offers a concentration which permits the student to select one of three emphases preparing him for advanced studies or for teaching, research and technical careers available to one who holds the baccalaureate degree.

Requirements for a concentration in Earth Sciences for the B.A. degree:

Earth Sciences 230, 390, 490, 495; Geography 135, Geology 105; 7 to 9 hours from Geography 330, 335, 430, 432; and 7 to 8 hours from Geology 115, 205, 215, 216, 217, 315. Collateral requirements are Chemistry 101-102, Physics 102-102, and Statistics 265. A "C" or better average on all courses taken within the department.

Requirements for a concentration in Geography for the B.A. degree:

Geography 135, 145, 215, 330; Earth Sciences 390, 495; and at least 18 additional hours in Geography. Collateral requirements are Geology 105, Statistics 265, and at least 15 hours selected from Anthropology, Biology, Chemistry, Computer Science, Earth Sciences, Economics, Geology, History, Mathematics, Physics, Political Science, Psychology and Sociology. A "C" or better average on all courses taken within the department. Students planning to attend graduate school are urged to take Computer Science 111 and 115, Mathematics 111-112 or 115, and French 101-102 or German 101-102.

Requirements for a concentration in Geology for the B.A. degree:

Geology 105, 115, 215, 216, 217, 315, 316, 330; and Earth Sciences 230, 390, 495. Collateral requirements are Chemistry 101-102, Statistics 265, and 8 hours selected from Biology, Chemistry, Computer Science, Earth Sciences, Geography and Physics. A

"C" or better average on all courses taken within the department. Students planning to attend graduate school are urged to take Computer Science 211, Mathematics 211-212, French 101-102 or German 101-102, Geography 135 and a summer field course in Geology offered by another institution.

ECONOMICS

(See Business and Economics)

ELEMENTARY EDUCATION

Requirements for a concentration in Elementary Education for the B.A. degree:

Early Childhood (K-3): Education 215, 315, 325, 355, 361, 365, 460-2, and two courses selected from the following: Education 335, 345, 415, 425, and 371; Psychology 216 and 220. Required collaterals are Art 201 or 202, or 203, 385; Drama and Speech 115 or 215; and one three-hour course in literature offered by the English Department; Geography 135; History 231, 232; Music 115, 325; Political Science 205; Physical Education 305, 385; Physics 305; one laboratory course selected from Biology, Chemistry, Geology or Physics; and one of the following groups: Language Arts (9 hrs.); Social Studies (11 hrs.) three hours must be selected from Anthropology, Economics or Sociology; Art (12 hrs.); Mathematical Sciences (12 hrs.); Music (12 hrs.); Physical Education (12 hrs.); Science (11 hrs.).

Intermediate Education (4-9): Education 215, 315, 335, 371, 460-6, and two courses selected from the following: Education 335, 345, 361, 415, and 425; Psychology 216 and 220. Required collaterals are Art 201 or 202 or 203, 385; Drama and Speech 115 or 215; English 345, and one three-hour course in literature offered by the English Department; Geography 135; History 231, 232; Mathematical Sciences 305; Music 115, 325; Political Science 205; Physical Education 305, 385; Physics 305; one laboratory course selected from Biology, Chemistry, Geology or Physics; and one of the following groups: Language Arts (9 hrs.); Social Studies (11 hrs.), three hours of which must be selected from Anthropology, Economics or Sociology; Art (12 hrs.); Mathematical Sciences (12 hrs.); Music (12 hrs.); Physical Education (12 hrs.); Science (11 hrs.).

Elementary Education degree candidates must earn a "C" or better grade on all Education and Psychology courses. NOTE: Approximately thirty semester hours from the list of collaterals may be used selectively to meet divisional requirements in basic studies.

ENGINEERING

(See Earth Sciences)

ENGLISH

Requirements for a concentration in English for the B.A. degree:

English 101-102, 211, 212, and 24 hours at the 300-400 level, including one American literature course, one Shakespeare course, 460, and five electives (which must include 305 and 306 for teacher certification). Fifteen hours of collaterals selected from: Art 201, 202, 203, 306; Drama and Speech 115, 221, 222, 225, 465; Music 115, 116; or any courses offered by the Departments of Modern Languages (except Spanish 205), History, and Philosophy and Religion. A "C" or better average on English courses.

ENVIRONMENTAL STUDIES

Requirements for a concentration in Environmental Studies for the B.A. degree:

Core: Environmental Studies 195, 495, Statistics 265 and Computer Science 111 and 115. Four courses representing four different disciplines selected from: Chemistry 333 (EVS 333); Physics 106 (EVS 106); Biology 205, 206; Geology 105; Geography 135. Three courses representing three different disciplines from: Political Science 305, 308; Sociology 205; Psychology 370 (EVS 370); Economics 305 (EVS 305).

Specialization: A minimum of 20 hours, taken from one of four options. All course sequences must be above the 299 level and approved by the Environmental Studies Chairman. A "C" or better average is required. Option (1) Marine Science: A sequence of courses including Biology 362, 466; Geology 205, 305, and Geography 432. Option (2) A disciplinary course sequence with an emphasis restricted to one of the following: Biology, Chemistry, Economics, Earth Sciences, Mathematical Sciences, Physics, Political Science, Psychology, Sociology. Option (3) A substantive interdisciplinary sequence selected from either (a) The Natural and Mathematical Sciences or (b) The Social and Managerial Sciences. Option (4) A topical multidisciplinary approach in which the student in conjunction with his advisor and the Environmental Studies Chairman designs his own specialization in order to investigate a specific environmental topic. The student will choose courses appropriate to the investigation and write a senior paper (EVS 490) at the completion of the project.

FRENCH

(See Modern Languages)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

HISTORY

Requirements for a concentration in History for the B.A. degree:

History 111, 112, 231, 232; an additional 24 hours in History (with a minimum grade of C) at the 300-400 level. Upper level work should encompass a broad range rather than specialization within one area of history, and students are expected to complete the required lower level courses before upper level ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least 4 of the following areas: English, Modern Languages, Philosophy and Religion, and the Social Sciences: Anthropology, Economics, Geography, Political Science and Sociology. History majors working toward certification in Social Studies for secondary school teaching must complete all 21 hours in the Social Sciences, with courses in at least 3 areas.

MARINE BIOLOGY

(See Biology)

MATHEMATICAL SCIENCES

Requirements for a concentration in Computer Science for the B.S. degree:

Computer Science 111, 211, 311, 325, 331, 332, and at least one laboratory (it is highly recommended that students take two) selected from Computer Science 115, 116, 117, and 118; Mathematics 335; and Statistics 361. In addition to these requirements there are three options described below, one of which a student must elect in order to complete the degree requirements. In general, enough latitude is allowed in each to accommodate a double major if the student wishes.

Option 1: Computer Science 340, 425, 431, 432, and six hours at the 300-400 level approved by the advisor; Mathematics 315; and Physics 201-202.

Option 2: Computer Science 410, 415, either 431, 432 or 340, 445, and six hours at the 300-400 level approved by the advisor; Mathematics 315, 336; and Physics 201.

Option 3: Computer Science 117, 340, 445, and twelve hours at the 300-400 level approved by the advisor; six hours at the 300-400 level from Accounting, Business, or Economics.

A "C" or better average is required on Computer Science courses at the 300-400 level.

Requirements for a concentration in Mathematics for the B.S. degree:

Mathematics 115, 211-212-213, 315, 317, 335, 336, 411-412, and at least two additional 300-400 level Mathematics courses. Collaterals: Computer Science 111 and either 115, 116, 117 or 118; Chemistry 101; Physics 201-202; Statistics 361; and two courses at the 300-400 level chosen from Accounting, Chemistry, Computer Science, Economics, Physics, Philosophy and Religion 318, and Statistics. A "C" or better average on Mathematics courses at the 300-400 level. It is recommended that students elect at least a year of either French or German.

Requirements for a concentration in Mathematics for the B.A. degree:

Mathematics 115, 211-212-213, 315, 317, 335, 336, 411, and at least two additional 300-400 level Mathematics courses (which must include Mathematics 345 and 346 for teacher certification). Collaterals: Computer Science 111 and either 115, 116, 117 or 118; Physics 201-202; Statistics 361; and two courses at the 300-400 level chosen from fields in which Mathematics is applied. A "C" or better average on Mathematics courses at the 300-400 level. It is recommended that students elect at least a year of either French or German.

MEDICAL TECHNOLOGY

(See Biology)

MODERN LANGUAGES

The Department of Modern Languages offers the B.A. degree in French or Spanish.

Requirements for a concentration in French for the B.A. degree:

Completion of all 300 level courses in French and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on

all courses taken in the area of concentration. Required collaterals: Modern Language 305 or 306; History 111 and 112; one course in English literature; and one additional foreign language through the intermediate level.

Requirements for a concentration in Spanish for the B.A. degree:

Completion of all 300 level courses in Spanish and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305 or 306; History 111 and 112; one course in English literature; and one additional foreign language through the intermediate level.

MUSIC

Requirements for a concentration in Music Education for the B.A. degree:

Music 101-102, 201-202, 211, 212, 213, 301-302; 6 semesters of applied music; 6 semesters of ensemble participation; a recital or thesis. Requirements for teacher certification by the Department of Public Instruction of the State of North Carolina: Music 181-182, 221, 231, 261, 306, 325, 326, 337, 405, and 406; professional education core required for certification. A "C" or better grade on each Music course taken.

Satisfactory completion of a piano proficiency examination is required of all students. Those who do not pass the proficiency examination upon entering the music program are required to take piano class until the level of proficiency in the examination has been reached. Attendance at weekly music department seminars is required.

Requirements for a concentration in Creative Arts-Music for the B.A. degree:

Music 101-102, 201-202, 301-302, 6 semesters of applied music; 6 semesters of ensemble participation; recital or thesis. Music 211, 212, 213; 3 hours of history from each of the two following areas: Drama & Speech 321, 322, Art. Six additional hours to be chosen from either Drama and Speech or Art. Electives chosen in consultation with advisor.

A "C" or better grade in all courses taken to meet the Creative Arts degree requirements. Satisfactory completion of piano proficiency examination is required of all students.

Those who do not pass the proficiency examination upon entering the music program are required to take piano class until the level of proficiency in the examination has been reached. Attendance at weekly music department seminars is required.

To facilitate entrance into either of the above music programs,

an audition, interview, and theory placement test is required.

NURSING

Requirements for a concentration in Nursing for the A.A. degree:

Nursing 110, 120, 135, 220, 225, 250; English 101, 102; Psychology 145, 220; Sociology 105; Biology 215, 225; Chemistry 107; an elective from the Humanities or Creative Arts.

Completion of the program of studies requires a grade of "C" or better in each course carrying a Nursing title plus a "Satisfactory" on performance in all clinical laboratory work.

PHILOSOPHY AND RELIGION

Requirements for a concentration in Philosophy and Religion for the B.A. degree:

Philosophy and Religion 101, 201, 202, and 21 additional hours, including 9 at the 300-400 level, six of which must be at the 400 level. Collateral courses will be determined in individual consultation with the advisor.

PHYSICAL EDUCATION

Requirements for a concentration in Physical Education for the B.A. degree:

For a concentration with teacher certification: Physical Education 101, 102, 105, 215, 220 (minimum of 10 activities), 235, 305, 306, 316, 320, 355, 385, 415, 420, 435. Required collaterals: Biology 105, 206; Psychology 216 and 220 or 221; Education 215, 315, 361 or 371, 459, 460.

For a concentration without teacher certification (Recreation Emphasis):

Physical Education 101, 102, 215, 265, 266, 267, 306, 316, 365, 366, 368, 415, 465. Required collaterals: Psychology 220, 221, 322; Sociology 215, 225.

PHYSICS

Requirements for a concentration in Physics for the B.A. degree:

Physics 201-202, 315, 321, 335, 400 (2 hours), 495 (1 hour), and 8 additional hours as recommended by the advisor; Mathematics 315, 316; a minimum of 4 hours in Chemistry. A "C" or better average in Physics courses at the 300-400 level.

Requirements for a concentration in Physics for the B.S. degree:

Physics 201-202, 315-316, 321-322, 335-336, 400 (3 hours), 495 (1 hour), and 6 additional hours in Physics as recommended by the advisor; Mathematics 315, 316 and 3 additional hours above

the calculus; 2 semesters of Chemistry. A "C" or better average in Physics courses at the 300-400 level.

POLITICAL SCIENCE

Requirements for a concentration in Political Science for the B.A. degree:

Political Science 111, 205, 311 and 27 additional hours, of which 21 must be at the 300-400 level. At least one course at the 300-400 level must be taken in each of the following sub-fields of Political Science: American Government and Politics, Political Theory (Normative and Empirical) and Methodology, International Relations, Comparative Government. Required collaterals: 24 hours selected from at least four of the following disciplines: Anthropology, Economics, Environmental Studies, Geography, History, Psychology and Sociology. A "C" or better average on all 300-400 level Political Science courses. Students planning to do graduate work are urged to study a modern language and acquire a basic knowledge of Computer Science, Statistics and Mathematics through the calculus.

PSYCHOLOGY

Requirements for a concentration in Psychology for the B.A. degree:

Psychology 105, 225, 255, 355, 405 and a minimum of 21 additional hours. These must include at least two courses from among 346, 347, 365, 370, and 465, and at least two from among 310, 410, 417, 420, 456, and 457. Twelve hours of collaterals from a related field and approved by the advisor are required. A "C" or better average on psychology courses must be maintained.

SOCIAL SCIENCE

Participating disciplines: Anthropology, Economics, Earth Sciences, Political Science, Psychology, and Sociology.

Requirements for a concentration in Social Science for the B.A. degree:

Forty-eight hours in the Social Sciences. Work must be taken in at least 3 areas with a minimum of 21 hours in one area and 12 hours in a second area of concentration. A minimum of 30 hours must be in courses above 299. Required collaterals: 6 hours in History and 3 hours in an introductory Statistics course (Statistics 265 or a departmental equivalent chosen from the student's major field).

SOCIAL WORK

(See Sociology and Anthropology)

SOCIOLOGY AND ANTHROPOLOGY

Requirements for a concentration in Sociology for the B.A. degree:

Sociology 105, 405, 406, 455, 490, and 18 additional hours, 12 of which must be at the 300-400 level; Computer Science 105; Mathematics 265. Additional knowledge of computer science and mathematics through calculus are recommended, particularly for those students who plan to attend graduate school. Collaterals will be decided upon in consultation with each advisee. A "C" or better average on each 300-400 level departmental course required of majors.

The major specializations represented in the department are Sociology, Anthropology, Social Work, and Criminal Justice. Within Sociology some areas of emphasis are deviance, environmental studies, planning, change, population and urban ecology.

The department does offer some alternatives to the above requirements for students who opt to specialize in areas such as Social Work, Criminal Justice or Anthropology. These alternatives are periodically being updated and are always available in the department.

SPANISH

(See Modern Languages)

PROFESSIONAL PROGRAMS

JAMES WALKER MEMORIAL ASSOCIATE DEGREE PROGRAM IN NURSING

Director: Miss Dixon

The Nursing Program is designed as a two-year program to prepare graduates who will meet the requirements for the Associate in Arts degree in Nursing. Upon completion of the prescribed program, the graduates are eligible to write the State Board of Nursing Examination for licensure as registered nurses and will be able to provide patient-centered nursing care in beginning practitioner positions.

Admission to the Associate Degree Program in Nursing requires in addition to acceptance to the university an interview with and approval by the Department of Nursing.

MEDICAL TECHNOLOGY

Advisors: Mr. F. Allen, Mrs. Pittman

The University of North Carolina at Wilmington offers, in cooperation with affiliated hospitals which have been approved for this purpose by the American Society of Clinical Pathologists, the Bachelor of Science degree with a concentration in Medical Technology. The first six semesters of the program (90 semester hours) are completed on campus and students are required to attain a 2.0 average on work attempted. The final year is spent in residence at an approved affiliated hospital.

The completion of the first three years of the program does not necessarily mean the student will automatically be admitted to the twelve-month course in Medical Technology at a hospital. Application to the desired affiliated hospital should be made early in the junior year with the approval of the faculty advisor as entrance requirements may vary at individual hospitals. Upon acceptance by the hospital, the student must notify the advisor and fill out the required form.

Upon successful completion of this four-year program the student will receive the Bachelor of Science degree in Medical Technology from the university and will be eligible to take the examination for certification by the American Society of Clinical Pathologists (ASCP).

Application for graduation should be filed in the office of the registrar during the first semester of the junior year.

Requirements for the B. S. degree in Medical Technology are listed under Biology in the Departmental Requirements section of this catalogue.

THE TEACHER EDUCATION PROGRAM

Advisor: Dr. Doss

The Teacher Education Program at The University of North Carolina at Wilmington stresses a broad education base, a sound subject matter preparation, and an appropriate emphasis on professional education to meet state certification requirements and to give the prospective teacher confidence.

All students who expect to follow the Teacher Education Program must be formally admitted into the program according to policy established by the University Council on Teacher Education. To be eligible for admission, students must have higher than a 2.0 academic average.

In addition to the basic requirements for graduation, the program includes the following courses on which a grade of "C" or better is required:

Psychology 216—Educational Psychology (3)
Psychology 220—Child Psychology (Elementary Teachers) (3)
Psychology 221—Adolescent Psychology (Secondary Teachers) (3)
Education 215—Orientation to Teaching (3)
Education 315—Historical and Philosophical Foundations of Education (3)
Education 371—Improvement in Reading Instruction (3)
Education 459—Sociological Foundations of Education (6)
Education 460—Theory and Practice of Teaching (9)

The university is authorized to certify students for teaching at the secondary level in the following areas: Biology, Chemistry, English, French, History, Mathematics, Music, Physical Education, Physics, and Spanish. Students who major in History, Political Science or Sociology may obtain teacher certification in Social Studies. Requirements are a minimum of 21 semester hours in three additional social studies areas. Students seeking certification on the secondary level are required to complete a concentration in a subject area normally taught in secondary schools in addition to the professional work listed above.

PRE-PROFESSIONAL PROGRAMS

PRE-AGRICULTURE AND PRE-FORESTRY

Advisor: Dr. Sieren

Pre-professional programs in forestry and agriculture are arranged which enable students to transfer to schools offering professional training in the two fields. The programs are designed to meet the requirements and recommendations of the professional schools and students should plan their programs in consultation with the pre-agriculture or pre-forestry advisor.

PRE-ENGINEERING

Advisors: Mr. Dempsey, Mr. Long and Mr. Lupton

The university offers the first two years of work in engineering. On satisfactory completion of this program students transfer into the junior year at a specialized engineering school without loss of time toward graduation.

General Requirements: Mathematics 115, 211 (students with sufficient background should place immediately into Mathematics 211), 212, 213, 315; Chemistry 101, 102; Computer Science 111, and 115 or 116; Engineering 111; Physics 201, 202; English 101, 102, and one literature course; Economics 205; one History course; Physical Education 101, 102, (N. C. State University requires 4 credit hours); and one elective (Civil Engineering students should consider Geography 330).

Specific Requirements:

Chemical Engineering: Chemistry 311, 312

Civil Engineering: Geology 105; Engineering 211, 212

Electrical Engineering: Physics 215, 216

ENGINEERING OPERATIONS (PRODUCTION SEQUENCE)

Advisor: Dr. Kaylor

The University of North Carolina at Wilmington offers jointly with North Carolina State University a program leading to the Bachelor of Science in Engineering Operations degree with a production sequence. Students in this program take 90 semester hours as specified below at UNC-Wilmington and the final 38 semester hours in residence at North Carolina State University. The degree is conferred by North Carolina State University at Raleigh.

Courses to be Taken at UNC-Wilmington:

	Semester Hours
*Physical Education	4
**English 102 Composition	3
*Literature	3
*History	3
*Humanities/Social Sciences	9
Economics 251 Principles of Economics	3
Economics 252 Principles of Economics or	
Business Administration 356 Personnel Management	3
Accounting 201 Principles of Accounting	3

+Accounting 202	Principles of Accounting	3
Accounting 305	Cost Accounting or	
Accounting 306	Accounting for Management Control	3
Business Administration (one of the following):		3
BUS 345, Marketing; BUS 348, Sales and Sales Management;		
BUS 356, Personnel Management; or BUS 461, Business Law		
Economics 427	Labor Economics	3
Mathematics 211, 212, 213	Calculus with Analytic Geometry	12
++Statistics 265	Introduction to Statistics	3
Physics 201, 202	General Physics	10
Chemistry 101, 102	General Chemistry	8
Engineering 111, 112	Engineering Graphics	4
Computer Science 211	Algorithmic Languages	3
*Free Electives		7
	Total Credits at UNC-W	90

*Specific courses to be selected by student within the prescribed areas.

**English 101 is not required except as prerequisite to English 102. Transfer credit will not be given toward Engineering curriculum.

+Accounting 202 is not required except as prerequisite to Accounting 305 or Accounting 306. Credits will be transferred as elective credits.

++In lieu of Statistics 265, Statistics for Engineers ST 361, may be taken by correspondence from NCSU.

PRE-MEDICINE AND PRE-DENTISTRY

Advisor: Dr. Levy

Students who expect to apply for admission to medical or dental schools should be aware of the high standard of work at the undergraduate level required by these professional schools and of the specific course requirements for admission.

Requirements for admission to medical schools differ slightly from those to dental schools. Basic work in Biology, Physics and Chemistry (including organic chemistry) is required in both instances. Students should plan their programs with the help of their pre-professional advisor.

PRE-LAW

Advisor: Dr. James Dixon

Students who plan to prepare for law school may select a major

in any discipline that fulfulls the general and specific requirements for a baccalaureate degree at UNC-W. In developing a pre-law program, the student should be aware of the recommendation of the Association of American Law Schools, which describes the basic skills and insights it believes fundamental to the later attainment of legal competence. These are (a) comprehension and expression in words, (b) critical understanding of human institutions and values with which the law deals; and (c) creative power in thinking. In order to develop these capacities, the association recommends a pre-legal education of "the broadest scope". To accomplish these goals The University of North Carolina at Wilmington offers a wide range of pre-law courses. Although Political Science and Business are frequently selected by pre-law students as their major, Economics, History, Sociology and others are sometimes selected. Regardless of the area of concentration, the pre-law student should be zealous in the selection of electives that will facilitate critical understanding of economic, political and social institutions. Since a lawyer must be able to communicate effectively, the pre-law student is well-advised to lay special emphasis on communicative skills. Also a knowledge of elementary accounting is desirable and highly recommended.

Finally, the pre-law student should remember that the quality of undergraduate instruction is more important than the subject matter area. The Association of American Law Schools recommends the selection of courses which require the greatest preparation and intellectural discipline. "The best trained applicant for law school," states the Association, "is the student who has studied under teachers who have inspired, challenged, and pressed him."

All candidates for law school are urged to apply for admission and register for the October or December administrations of the Law School Admission Test. This should be done during the fall of their senior year in college. The Law School Admission Test is explained fully in the Law School Admission Bulletin which is available in the Political Science Department at UNC-W. Additional information and helpful advice may be secured from designated pre-law advisors in the Department of Political Science.

PRE-PROFESSIONAL PROGRAMS IN PHARMACY (and other fields)

Pre-professional programs in Pharmacy and other fields are arranged in two-year to four-year programs. Students interested in these programs will be assigned to faculty advisors familiar

with requirements and recommendations of the respective professional schools.

SPECIAL PROGRAMS

MARINE SCIENCES

Marine Science activity at The University of North Carolina at Wilmington consists of instructional and research programs on the university's main campus as well as specialized research activities associated with its Institute of Marine Biomedical Research at Wrightsville Beach.

The Program in Marine Sciences on the university's main campus is a three-faceted one consisting of a Marine Biology curriculum leading to the B. S. degree, an Environmental Studies curriculum leading to the B.A. degree, and a Marine Science Research Program which includes faculty members engaged in various aspects of marine science research.

MARINE BIOLOGY CURRICULUM

The Marine Biology curriculum is the only one in the university system leading to the baccalaureate degree. It includes a basic introduction to the field of Biology with an emphasis in Marine Biology at the junior and senior levels. Full use is made of the natural laboratory provided by the adjacent Atlantic Ocean through extensive field work associated with various Marine Biology courses. Approved collateral requirements include marine-oriented course work in the physical sciences. The curriculum is flexible enough to meet the individual needs of the student enabling him to prepare for advanced studies or for teaching and research careers available to one with the baccalaureate degree. Requirements for the B.S. degree in Marine Biology are listed under Biology in the Departmental Requirements section of this catalogue.

MARINE SCIENCE RESEARCH PROGRAM

The Marine Science Research Program has a number of active participants with research interests covering several areas of Marine Biology, certain aspects of Physical and Chemical Oceanography, Marine Geology and Marine Biogeography. There are two categories of participants in the program: those who hold re-

search positions and those who hold regular teaching positions but who are also engaged in Marine Science research. All participants are involved in the Marine Science instructional program.

ENVIRONMENTAL STUDIES CURRICULUM

The Environmental Studies curriculum emphasizes the importance of multidisciplinary approaches in the study of environmental problems, particularly those dealing with the marine environment. The curriculum exposes the student to a broad range of investigatory procedures in the natural and social sciences, while allowing him to develop special capabilities within his primary area of interest.

The curriculum is divided into two parts: a multidisciplinary core consisting of course work in the natural and social sciences, including a series of Environmental Studies seminars, and an area of specialization consisting of course work in one or more of the approved disciplines. Those who wish to emphasize Marine Science may do so by electing an approved sequence of courses in Marine Science. Requirements for the B. A. degree in Environmental Studies are listed in the Departmental Requirements section of this catalogue.

INSTITUTE OF MARINE BIOMEDICAL RESEARCH

The Institute of Marine Biomedical Research bases its operations in a modern laboratory located near Wrightsville Beach. Its activities center around a program of research, and instruction by research participation, focusing upon a variety of physiological problems in the marine environment. The institute has achieved world-wide recognition for studies in high-pressure physiology and in the simulation of deep-ocean environments. Its facilities include a unique system of deep-ocean simulators capable of reproducing environments down to those prevailing at 35,000 feet, as well as specialized equipment for the study of the effects of high pressures on both experimental animals and man. In operations at sea, the institute has pioneered in the use of wet submersibles, in investigations concerning the chemical control of behavior in invertebrates, and in the capture of deep-sea fauna for experimental study. Activities on the institute's campus are supplemented by research cruises and expeditions which take students and faculty to environments that cannot be easily simulated on the North Carolina coast, including tropical marine environments, such as coral reefs, and environments where human populations live under stress, such as desert, tropical forest, and arctic regions.

FIELD SCHOOL IN MARINE ARCHAEOLOGY

The Department of Sociology and Anthropology, in cooperation with the Archaeology Section of the North Carolina Division of Archives and History, offers a unique experience in archaeological instruction during the summer. Primary emphases are the locating and mapping of underwater wrecks along the North Carolina coast between Cape Hatteras and Cape Fear. Actual excavation of some sites is followed by experiential training in the preservation and interpretation of recovered artifacts.

Previous archaeological experience, upper-class status, recognized scuba certification and medical fitness are required for participation in this program. Both the methodology of marine archaeology and actual experience of diving on sites are planned for each summer session.

THE TROPICAL EXPERIENCE

The Departments of Biology, Sociology and Anthropology, and Modern Languages offer a six-week summer field program in selected tropical areas of the world. The current program and that of the next few years will emphasize tropical Latin America. Students enrolling in the program may carry out investigations in tropical marine biology, tropical vertebrate zoology, tropical botany, tropical ecology, anthropology and archaeology of the tropical zones, or language and cultural studies.

HONORS PROGRAM

A student who has a quality point average of 3.0 or better (including all transferred work) over the first two and one-half years of college work (74 semester hours), who has completed at least 30 semester hours work with a 3.0 better quality point average at The University of North Carolina at Wilmington, and who is recommended by the chairman of the area in which he is concentrating, is eligible for admission to the Honors Program. This program involves independent study in the area of concentration, a paper reporting the results of the study, and an oral examination. Honors work is not intended to replace any specifically required course.

A student who enters the Honors Program will be required to complete six semester hours of honors work in the field of concentration during the last three semesters, with a maximum of three semester hours credit in any one semester. The Honors Program may be entered either at the beginning of the second semester of the junior year (on completion of 74 semester hours) or at the

beginning of the first semester of the senior year.

In order to graduate with honors, a student must successfully complete the program and have a 3.0 quality point average over all college work at the time of graduation. A student who does not retain an overall average of 3.0, however, may still receive credit for the honors project.

RESIDENT LECTURESHIP IN JUDAIC STUDIES

Through a Lectureship in Judaic Studies, the university offers a series of conferences and courses on the sources and resources of the Judaeo-Christian legacy.

The lectureship is jointly sponsored by a group of donors and sponsors from the Wilmington area and the Jewish Chautauqua Society.

Full details on the lectureship, as well as information concerning the conferences and courses to be offered during a given semester, may be obtained by contacting the resident lecturer.

SUMMER SCHOOL

The Summer Session constitutes an integral part of the university's academic year. Students may take advantage of specially designed programs, such as marine archaeology and the Latin America experience. There are a variety of courses offered for students who wish to accelerate their progress toward the baccalaureate degree, to supplement the academic load carried during the regular terms, or to remove deficiencies.

Full information concerning the Summer Session may be obtained by contacting the director.

CONTINUING EDUCATION

The Office of Continuing Education serves as the coordinator, convener and catalyst for a variety of educational and service oriented activities throughout southeastern North Carolina. Part of its task is to develop an awareness of the continuing education needs of the community by working closely with business, industry, educational institutions, service organizations, social service agencies, government agencies, civic groups, and individuals.

Persons participating in university activities through the Continuing Education Program are subject to all the policies and academic regulations of the university. Applicants are admitted entirely on the basis of their academic qualifications and without reference to national origin, creed, color or sex.

REGISTRATION OF ADULTS AS SPECIAL STUDENTS

Persons who wish to enroll as special non-degree students or college graduate special students should do so through the Office of Continuing Education. (Regular degree candidates and audit students register through the Office of Admissions.)

(a) SPECIAL NON-DEGREE STUDENTS

Students who enroll in the special non-degree category are not formally admitted to the university as degree candidates.

Special non-degree students may take any course listed in the university's schedule of classes. They are limited to two courses per semester or per summer term. They must honor any prerequisite listed in the course description section of the catalogue. Academic credit is granted for courses successfully completed.

To be eligible for admission as a special non-degree student, one must meet the following requirements:

1. The candidate must have acquired a high school diploma.
2. The candidate must be at least 21 years of age.
3. The candidate must not have been suspended from a college or university within the past three years.
4. The candidate must not be classified as a degree student at The University of North Carolina at Wilmington.

It is possible for a special non-degree student to complete many of the required courses for the first two years of a degree program. All of these courses carry resident academic credit which, if applicable, may be transferred to a degree program by meeting the following requirements and procedures:

A special non-degree student who has never attended an institution of higher education may apply to the Admissions Office for admission as a regular degree candidate when he or she has completed a minimum of twelve semester hours with an overall "C" average. A special non-degree student who has attended another institution may apply for admission as a regular degree candidate after consultation with the Admissions Office. To avoid delay in having applications considered for admission as regular students, special non-degree students are advised to have transcripts from all institutions previously attended forwarded to the Admissions Office well in advance of the semester for which they wish to apply.

Since the maximum number of semester hours allowed in the special non-degree program is 27, students are advised to apply for admission as regular degree candidates early in the

semester in which this maximum number of hours is to be attained.

(b) COLLEGE GRADUATES

Any individual who already possesses a college degree and who wishes to enroll for a course at the university at Wilmington should register through the Office of Continuing Education. (Any individual with a degree who wishes to work toward a second baccalaureate degree should consult the Office of Admissions.)

College graduate special students may take any course listed in the university's schedule of classes. They are permitted to elect up to 18 hours per semester; more than that requires the special permission of the Vice Chancellor for Academic Affairs. They must honor any prerequisite listed in the course description section of the catalogue.

PROGRAMS AND SERVICES FOR BUSINESS AND INDUSTRY

The university through the Office of Continuing Education is prepared to offer a variety of short courses, conferences, and workshops designed specifically for business and industry. These activities may be conducted either by this university's faculty and staff or by individuals from other universities or organizations. The activities may include programs in communication, management, supervision, small business administration, computer programming, and other topics. Activities may be either custom designed for a specific business or industry or offered to the entire community as a regularly scheduled event.

The university at Wilmington works closely with other institutions in the University of North Carolina system in an attempt to bring programs or activities not available on this campus to southeastern North Carolina.

PROGRAMS AND SERVICES TO PUBLIC ORGANIZATIONS

The university is vitally interested in assisting public organizations (municipal, county, state, and federal) with their training and educational programs. A variety of continuing education activities including credit courses, noncredit short courses, workshops, conferences, and seminars are offered to public organizations.

PROGRAMS AND SERVICE TO SCHOOL SYSTEMS

The university is prepared to assist school systems with their programs for the professional improvement of teachers. Courses

can be designed to meet certification renewal requirements and to provide general training for teachers and administrators.

Continuing education activities may include courses or training in all of the academic disciplines offered at the university. Many activities can be designed to meet the needs of a specific school or school system.

PROGRAMS AND SERVICE TO THE GENERAL PUBLIC

The Office of Continuing Education arranges a full schedule of community interest programs during each academic year simply to help people learn something new and to contribute to personal enrichment.

These activities include speakers, discussion groups, short courses, workshops, and conferences. The topics range from local problems to international affairs.

The Office of Continuing Education coordinates the "Great Decisions" program during February and March of each year. This program, sponsored and developed by the American Foreign Policy Association, is a discussion group activity which includes eight topics of international interest. It is a non-credit activity open to the public.

UNIVERSITY EXTENSION PROGRAM

In an effort to reach beyond the bounds of the campus, the university offers, through the Office of Continuing Education, a number of freshman and sophomore level courses on the campuses of three regional technical institutes. The institutes involved in this program are James Sprunt Institute in Kenansville, Bladen Technical Institute in Dublin, and Sampson Technical Institute in Clinton, North Carolina.

The institutes are responsible for recruiting and enrolling students in this program. Only those students who are high school graduates or the equivalent may be enrolled for academic credit in the extension program of the university.

All requests for transcripts for university extension courses should be forwarded to the Registrar of the University of North Carolina at Wilmington.

Students without previous college credit may be admitted to the university upon completion of 12 semester hours of credit if they have maintained a "C" average. Students with previous college credit must have a "C" average on all hours attempted in order to be admitted to the university.

Further information concerning the Continuing Education Program may be obtained by contacting the director.

UNC-W

DESCRIPTION OF COURSES

DESCRIPTION OF COURSES

This section contains a listing of all the courses offered by each academic department. Not all of the courses listed are necessarily offered within a single academic year. For a listing of the courses actually offered during a given semester, see the course schedule which is printed for that semester. This schedule lists the time, place and instructor for each course offered during the semester. Copies may be obtained in the Office of the Registrar.

A hyphen connecting courses (e.g. 201-202) indicates that the first course in the sequence must be satisfactorily completed prior to registration in the second course of the sequence. When course numbers are separated by a comma (e.g. 201, 202) the first course is not necessarily prerequisite to those following. The semester hours credit for each course is indicated in parentheses following the course title.

ACCOUNTING

(See Business and Economics)

ANTHROPOLOGY

(See Sociology and Anthropology)

ARABIC

(See Modern Languages)

ART

Mr. Howell, *chairman*. Miss Conner, Mr. Goins.
Estimated additional cost of supplies for some art laboratory courses will be $10.00.

105 Painting Techniques (1)
Painting in various media: oil, acrylic, watercolor, etc. Two hours each week. May be repeated indefinitely. Accumulative credit limited to two hours.

106 Three-Dimensional Form Techniques (1)
Three-dimensional form with emphasis on sculpture and ceramics. Two hours each week. May be repeated indefinitely. Accumulative credit limited to two hours.

107 Drawing Techniques (1)
Drawing in various media: charcoal, ink, polymer, etc. Two hours each week. May be repeated indefinitely. Accumulative credit limited to two hours.

111-112 Beginning Life Drawing (3-3)
Drawing from the model in various media: pencil, charcoal, ink, etc. Six studio hours each week.

141-142 Two-Dimensional Design (2-2)
Fundamentals of design. One lecture and four studio hours each week.

143-144 Three-Dimensional Design (2-2)
Study of three-dimensional form to give the general art student a feeling for plastic awareness. One lecture and four studio hours each week.

201,202,203 Art History and Appreciation (3,3,3)
Survey of the general periods of art from prehistoric to modern. 201: Ancient World. 202: Middle Ages and Renaissance. 203: Modern World. Three hours each week.

208 Technical Skills (1)
Prerequisite: At least two different studio courses. Basic skills related to the arts: framing, matting, crating, etc. One studio hour each week.

211-212 Intermediate Life Drawing (3-3)
Prerequisite: Art 112 or permission of instructor. Drawing from the model in various media: pencil, charcoal, ink, etc. Six studio hours each week.

221-222 Beginning Ceramics (3-3)
Introduction to three-dimensional form and design in the manipulation of clays and glazes; basic techniques and approaches. One lecture and six studio hours each week.

231-232 Beginning Printmaking (3-3)
Prerequisite: Art 141 or 111 or permission of instructor. Problems in relief and intaglio using a variety of materials. One lecture and six studio hours each week.

241-242 Beginning Painting (3-3)
Prerequisite: Art 142 or consent of instructor. Emphasis on technique and expression. One lecture and six studio hours each week.

251-252 Beginning Sculpture (3-3)
Prerequisite: Art 144 or consent of instructor. Three-dimensional form in clay and plaster; basics of modeling and casting abstract and life forms. One lecture and six studio hours each week.

261-262 Beginning Crafts (3-3)
Prerequisite: Art 141 or consent of instructor. Beginning study of materials and techniques used in various craft forms. Work in weaving, batik, macrame and jewelry. One lecture and six studio hours each week.

281-282 Color (3-3)
Prerequisite: Art 142 or consent of instructor. Acrylic, oil, watercolor, and gouache; problems in the interrelationship of colors. One lecture and six studio hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

306 Italian Renaissance Art History (3)
Study of the development of art in Italy, 1000-1500 A.D. Emphasis on painting. Sculpture and architecture included as related to Renaissance concepts of thought.

311-312 Advanced Life Drawing (3-3)
Prerequisite: Art 212 or consent of instructor. Drawing in various media: conté, charcoal, ink, etc. Six studio hours each week.

321-322 Intermediate Ceramics (3-3)
Prerequisite: Art 222 or consent of instructor. Continuation of three-dimensional forms and design in manipulation of clays and glazes; basics of kiln construction and chemistry of glazes. One lecture and six studio hours each week.

331-332 Intermediate Printmaking (3-3)
Prerequisite: Art 232 or consent of instructor. Further exploration of printmaking techniques in relief, intaglio, silk screen. One lecture and six studio hours each week.

341-342 Intermediate Painting (3-3)
Prerequisite: Art 242 or consent of instructor. Further exploration of technique and expression. One lecture and six studio hours each week.

351-352 Intermediate Sculpture (3-3)
Prerequisite: Art 252 or consent of instructor. Three-dimensional form in plaster, ceramics and metals. One lecture and six studio hours each week.

361-362 Intermediate Crafts (3-3)
Prerequisite: Art 262 or consent of instructor. Further exploration of materials and techniques used in various craft forms. One lecture and six studio hours each week.

385 Art in the Elementary School (3)
Appreciation of art designed for elementary teachers, including studio work and art educational theory. One lecture and three studio hours each week.

411-412 Advanced Drawing (3-3)
Prerequisite: Art 312 or consent of instructor. Drawing with a variety of techniques and media. Six studio hours each week.

421-422 Advanced Ceramics (3-3)
Prerequisite: Art 322 or consent of the instructor. Further experience in three-dimensional form and design and emphasis on kiln construction and theory; physical and chemical properties of clays and glazes including the empirical method of glaze calculation. One lecture and six studio hours each week.

431-432 Advanced Printmaking (3-3)
Prerequisite: 332 or consent of instructor. Further exploration of printmaking techniques in relief, intaglio, silk screen, lithography and collograph. One lecture and six studio hours each week.

441-442 Advanced Painting (3-3)
Prerequisite: Art 342 or consent of instructor. Emphasis on techniques and expression. One lecture and six studio hours each week.

451-452 Advanced Sculpture (3-3)
Prerequisite: Art 353 or consent of instructor. Continuation of study of form with emphasis on casting and welding of metals. One lecture and six studio hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

BIOLOGY

Dr. Sieren, *chairman*. Mr. F. Allen, Dr. Bane, Dr. Biggs, Mr. Chapman, Mr. Cockerham, Mr. Davis, Mr. Dermid, Dr. Fugler, Dr. Hosier, Dr. Kapraun, Dr. Lindquist, Dr. Lundeen, Dr. McCrary, Dr. Merritt, Dr. Padgett, Dr. Parnell, Mrs. Pittman, Dr. Plyler, Dr. Roye.

105 Concepts of Modern Biology (4)
An introduction to the diversity of life and the unifying principles that bring order to that diversity. Some of the concepts discussed include the nature of life, energy relationships, reproduction and development, inheritance, evolution of life, behavior of animals, and ecology and the environment. Multi-media instructional materials are used. A Student Learning Center provides opportunity for tutorial and audio-vidual supplementary instruction. Three lecture and three laboratory/discussion hours each week.

205 Plant Biology (4)
Prerequisite: Biology 105. Classification, morphology, physiology, and ecology of seed plants with introductory survey of algae, fungi, bryophytes, and lower vascular plants. Three lecture and three laboratory hours each week.

206 Animal Biology (4)
Prerequisite: Biology 105. Classification, morphology, physiology, and ecology of animals. Three lecture and three laboratory hours each week.

215 (Physical Education 215) Anatomy and Physiology (4)
Prerequisite: Credit in Biology or consent of instructor. Brief introduction to major biological principles as applied to study of human anatomy and physiology. Three lecture and three laboratory hours each week.

225 Bacteriology (3)
Prerequisite: Credit in Biology. Open only to nursing students. Bacteria and related organisms; laboratory work in common bacteriological techniques. Two lecture and three laboratory hours each week.

235 Genetics in Human Affairs (3)
Prerequisite: Biology 105. A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing an understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of the department chairman.

315 Comparative Vertebrate Anatomy (4)
Prerequisite: Biology 206. Comparative morphology and phylogenetic interrelationships of vertebrate animals; representative organisms dissected in laboratory. Three lecture and three laboratory hours each week.

316 Vertebrate Embryology (4)
Prerequisite: Biology 206. Fundamental principles of embryonic development of vertebrate animals; frog, pig and chick emphasized. Three lecture and three laboratory hours each week.

335 Genetics (3)
Prerequisite: Biology 105. Principles of Mendelian heredity, linkage, mutation, population genetics, and gene action. Three hours each week.

335-51 Genetics Laboratory (1)
Prerequisite: Biology 105; *corequisite:* Biology 335. Demonstration of basic heredity principles through study of *Drosophila* and other genetic systems. Three laboratory hours each week.

345 Animal Physiology (4)
Prerequisite: Biology 206 and Chemistry 102. Comparative study of physiological processes in different organisms approached through study of tissues, organs, and systems. Three lecture and three laboratory hours each week.

347 Cell Physiology (3)
Prerequisite: Biology 105 and Chemistry 102. Chemistry 311-312 is recommended. Chemical and physical properties of cells. Emphasis on molecular biology and experimental biological systems used to elucidate cellular function. Three lecture hours each week.

347-51 Cell Physiology Laboratory (1)
Prerequisite or corequisite: Biology 347. Experiments demonstrating basic phenomena underlying cellular function using *Chlamydomonas* and other systems. Three laboratory hours each week.

355 Plant Physiology (4)
Prerequisite: Biology 205. A study of the role of the environment in plant physiological processes. Topics include energy fixation and utilization, physiological stress, physiological adaptation, and plant interactions. Three lecture and three laboratory hours each week.

356 Vertebrate Natural History (4)
Prerequisite: Biology 206. Identification, classification, and life histories of common vertebrate animals of eastern North Carolina with emphasis on field work. Two lecture and four laboratory hours each week.

357 Herpetology (3)
Prerequisite: Biology 206. A study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Two lecture and three laboratory hours each week. 1976-77 and alternate years.

358 Ichthyology (4)
Prerequisite: Biology 206. Taxonomy, morphology, physiology, and ecology of fishes. Three lecture and three laboratory hours each week.

362 Marine Biology (4)
Prerequisite: Biology 205 and 206. Marine biota and their relationship to the oceanic environment. Two lecture and four laboratory hours each week.

365 Invertebrate Zoology (4)
Prerequisite: Biology 206. Invertebrate organisms with emphasis on structure, function, taxonomy, phylogeny, and life histories of marine organisms. Two lecture and four laboratory hours each week.

366 Ecology (4)
Prerequisite: Biology 205 and 206. Ecological principles pertaining to both plants and animals. Two lecture and four laboratory hours each week.

370 Tropical Biology (3)
Prerequisite: Biology 205 and 206 or consent of instructor. Study of the geography, climate, plant communities, diseases, and geographic distribution and ecology of the major animal taxa of the neo- and paleotropics. Required of all students enrolling in Field Studies in Tropical Biology. Three lecture hours each week. 1977-78 and alternate years.

375 Plant Morphology (4)
Prerequisite: Biology 205. Morphological survey of algae, fungi, bryophytes, lower vascular plants, and seed plants with emphasis on life histories, classification, and identification. Three lecture and three laboratory hours each week.

377 Mycology (4)
Prerequisite: Biology 205. Taxonomy, morphology, physiology and ecology of fungi. Three lecture and three laboratory hours each week.

395 Methods of Biological Research (2)
Prerequisite: Biology 205 or 206 and one course in Mathematics (Mathematics 111 is recommended.) An introduction to the scientific method, hypothesis construction, design of experiments, data gathering techniques, and data analysis as it pertains to the biological sciences. The use of the computer as a tool in Biology will be practiced. Two hours each week.

425 Microbiology (4)
Prerequisite: Biology 205 or 206. Nonpathogenic and pathogenic organisms; microscopic study; culture and staining methods. Two lecture and four laboratory hours each week.

446 Phycology (4)
Prerequisite: Biology 205. Taxonomy, morphology, physiology, and ecology of algae. Three lecture and three laboratory hours each week.

456 Ornithology (4)
Prerequisite: Biology 206. An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

458 Fisheries Biology (4)
Prerequisite: Biology 205, 206, Mathematics 112, and consent of instructor. Biology 358 is recommended. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, migration, and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

465 Biochemistry (3)
Prerequisite: Chemistry 312. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; bio-energetics, regulatory mechanisms. Three hours each week.

466 Advanced Ecology (4)
Prerequisite: Biology 366. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

467 Biochemical Methodology (3)
Prerequisite or *corequisite:* Biology 465 or Chemistry 465. A laboratory course dealing with the techniques and methodology of modern biological chemistry. Topics include radiochemical tracer studies, various types of chromatography, organelle isolation, enzymology, isolation and assay procedures for various biological molecules. One lecture and five laboratory hours each week.

468 Planktonology (4)
Prerequisite: Biology 365 or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

470 Ecology of Human Populations (3)
Prerequisite: Biology 345 and 455 or 466. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles. Three hours each week.

475 Plant Taxonomy (4)
Prerequisite: Biology 205. Identification, classification, and phylogeny of vascular plants with emphasis on flora of eastern North Carolina. Field trips. Two lecture and four laboratory hours each week.

485 Special Topics in Advanced Biology (1-6)
Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.
1. Marine Phycology. *Prerequisite:* Biology 205. Taxonomy, morphology, physiology, and ecology of marine algae.
2. Marine Invertebrate Zoology. *Prerequisite:* Biology 206. A field-oriented course which utilizes local marine fauna to study the structure, function, ecology, and taxonomy of the major invertebrate groups.
3. Field Studies in Tropical Biology. *Prerequisite:* Biology 370 and/or consent of instructor. Spanish 105 is recommended. A research-oriented field course offered in tropical areas of Latin America; emphasis is on distribution, taxonomy, and ecology of aquatic and terrestrial organisms.

491 Directed Individual Study (1-6)
Prerequisite: Biology 395, junior or senior standing, consent of instructor, and consent of department chairman.

495 Seminar (1)
Discussion of selected topics drawn from current literature. May be repeated for one additional hour credit. One hour each week.

499 Honors Work in Biology (2-3)
Prerequisite: Second semester junior or senior standing. Independent study for honors students.

BUSINESS AND ECONOMICS

Dr. Kaylor, *chairman*. Mr. Anderson, Mr. Appleton, Mr. Burke, Mr. Clark, Mr. Cooper, Mr. Dunn, Dr. Farrell, Dr. Hall, Dr. Hill, Mrs. Knox, Dr. West.

ACCOUNTING

201-202 Principles of Accounting (3-3)
Prerequisite: Mathematics 121 or consent of instructor. Preparation of financial records, working papers, statements of financial position, income statements, and statements of changes in financial position. ACG 201 emphasizes financial accounting; ACG 202 emphasizes managerial uses of accounting.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

301-302 Intermediate Accounting (3-3)
Prerequisite: Accounting 202. Analysis of the theory, concepts, principles and procedures underlying the preparation of financial statements for external reporting in light of current issues and practices.

305 Cost Accounting (3)
Prerequisite: Accounting 202. Costs for planning and control, including the role of the accountant in the organization; cost behavior and volume-profit relationships; responsibility accounting; standard costs; flexible budgets; cost structures for control and motivation; and relevant costs for nonroutine decisions.

306 Accounting for Management and Control (3)
Prerequisite: Accounting 202. The study of how accounting data can be analyzed, interpreted, and used by management in planning and controlling business activities. Emphasis is on the analysis of accounting data rather than the collecting and recording functions. Not open to students concentrating in accounting.

308 Income Tax Accounting (3)
Prerequisite: Accounting 202. Principles of federal and state income taxes as related to individuals, partnerships, and corporations; the history and development of taxation, and special income tax problems.

401 Accounting for Business Combinations (3)
Prerequisite: Accounting 301-302. A study of accounting problems in mergers and consolidations, parent-subsidiary interrelationships, branch and foreign operations. Emphasis on consolidated financial statements.

402 Specialized Accounting Problems (3)
Prerequisite: Accounting 301-302. The application of accounting theory to specialized problems, including partnerships, fiduciary relationships, bankruptcy and reorganization, liquidation, governmental entities and other non-profit service entities.

403 Administrative Accounting and Control (3)
Prerequisite: Accounting 305 or Accounting 306. The controllership function and analytical methods to serve the information needs of decision making and control; advanced topics in cost accounting, forecasting, budget design and preparation, and responsibility accounting.

407 Auditing (3)
Prerequisite: Accounting 301-302. Objectives, standards and procedures involved in examining and reporting on financial statements of business organizations by independent auditors in light of ethical and legal obligations.

408 Contemporary Accounting Theory (3)
Prerequisite: Accounting 301-302 and consent of instructor. Analysis and evaluation of current accounting thought relating to nature, measurement, and reporting of business income and financial condition.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Accounting (2-3)
Prerequisite: Senior standing. Independent work for honors students.

BUSINESS ADMINISTRATION

235 Personal Finance (3)
Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings, and investments. Recommended elective for non-business majors.

206 Computer Applications in Business (3)
Prerequisite: Mathematics 121 and Accounting 201. The vocabulary necessary to communicate with the computer, including an introduction to programming using the BASIC and FORTRAN languages. Computer applications in the fields of accounting, economics, and other business disciplines.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

301 (Economics 301) Statistical Analysis for Business and Economics (3)
Prerequisite: Mathematics 121 and Economics 251, 252. Classification and presentation of business and economic data, statistical inference including estimation and hypothesis testing procedures, Bayesian inference, correlation and regression analysis, time series and index numbers.

302 (Economics 302) Operations Research (3)
Prerequisite: Mathematics 121-122 and Statistics 265 or Business 301. Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control, game theory, queuing, and Markov chains.

310 Business Communications (3)
Prerequisite: English 102, Accounting 202 and Economics 251. Fundamentals of effective business communication with emphasis on writing business letters, papers, and reports.

335 Business Finance (3)
Prerequisite: Accounting 306, Economics 251, 252. An introduction to the finance function of business enterprises and to the analytical techniques

used in making investment and financing decisions. Brief review of financial analysis, planning and control. Emphasis is on decisions involving working capital, long-term assets, long-term financing, and financial leverage.

345 Marketing (3)
Prerequisite: Accounting 202 and Economics 251. Basic functions, institutions, and problems involved in the distribution of goods and services. Emphasis is upon integrating the managerial approach with the behavioral concepts of the marketing process.

346 Retailing (3)
Prerequisite: Accounting 202 and Economics 251, 252. Principles and methods of retailing in relation to its economic environment, store location, layout, organization, operation, merchandising, purchasing, pricing, sales promotion and managerial control.

347 Advertising Management (3)
Prerequisite: Business 345 or consent of instructor. An interdisciplinary approach to the ethical, social and economic roles of advertising. Emphasis is upon the why in copywriting, illustration, layout, media selection, budgeting, and evaluation of advertising planning and effectiveness.

348 Sales and Sales Management (3)
Prerequisite: Business 345 or consent of instructor. Planning, organizing, directing, and controlling sales operations. Emphasis is on the functions and problems of the sales executive.

355 Principles of Management (3)
Prerequisite: Accounting 202 and Economics 251, 252. Managerial principles and practices universally applicable in the planning, organizing, staffing, motivating, and controlling of human and economic resources. The historical development of management thought is an integral part of the course.

356 Personnel Management (3)
Prerequisite: Business 355 or consent of instructor. An examination and evaluation of the concepts and principles used by the business and nonbusiness organization in human resource management. The course is designed to provide the broad understanding needed by supervisors and executives rather than personnel managers.

357 Operations Management (3)
Prerequisite: Business 302 or consent of instructor. An introduction to the operations function of product and service enterprises and to the concepts of modern analytical techniques used to design and control quantity, quality, and cost of output from the productive activities. Applications to non-manufacturing organizations are considered but emphasis is on the manufacturing enterprise.

358 Organizational Behavior (3)
Prerequisite: Business 355 or consent of instructor. An evaluation of the behavioral science concepts and principles applicable to organizations. The objective is to broaden the student's understanding of human behavior in the work place and to explain how such behavior can be channeled toward desirable goals for both the individual and the organization.

360 Real Estate (3)
Prerequisite: Consent of instructor. Principles of property management and practices relating to appraisal, sales, ownership, control, financing, and transfer of real property.

365 Risk Management and Insurance (3)
An introduction to the risk management function and to the basic methods used to handle risks facing the business enterprise, families, and individuals. Emphasis is on the insurance method of handling risk with study of the concepts underlying insurance, the fundamentals of insurance contracts, and a broad selection of policy coverages in the property and liability, and life and health fields.

370 Transportation (3)
Introductory analysis of the five domestic modes of the transportation industry. The basic theoretical principles of transportation economics and carrier-shipper interactivity are evaluated together with the application of such principles to relevant market conditions. Also synthesized are carriers', shippers', and labor's efforts to improve the industry's productivity.

435 Investments (3)
Prerequisite: Business 335 or consent of instructor. An examination of the major outlets for individual investment funds including corporate and U. S. government securities. Major emphasis is placed on common stock analysis and evaluation and portfolio management. In addition, the securities market as an institution is examined along with the various theories of market performance.

436 Financial Management (3)
Prerequisite: Business 335. Financial analysis and decision making in the modern business organization. Theoretical foundations of financial decision making are emphasized including both working capital and fixed capital requirements.

445 Marketing Management (3)
Prerequisite: Business 345 and senior standing. Concepts in demand analysis, coordinating marketing action, determining and evaluating policies and procedures, use and evaluation of research.

446 (Economics 446) International Trade and Finance (3)
Prerequisite: Accounting 202, Economics 251, 252, or consent of instructor. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates, and balance of payments problems.

449 Marketing Research (3)
Prerequisite: Business 345 and Business 301 or Mathematics 265. Collection, interpretation, and use of data in the solution of marketing problems; scope and purposes of market research; sources of data; sampling, planning and utilization of field surveys.

453 Management of Small Business (3)
Prerequisite: Business 335 and Business 355 or consent of instructor. A study of the special problems, analysis, and decision making involved in the development and management of small business. Emphasis on the professional small businesss manager and entrepreneur.

455 Business Policy (3)
Prerequisite: Business 302, 310, 335, 345, 355, 357 and senior standing.

Capstone course integrating the functions and policies of business decision making at the policy making level of management. Case study method is used.

461-462 Business Law (3-3)
Prerequisite: Junior or senior standing or consent of instructor. Origin, nature, and classification of the law; state and national court systems; legal environment of business; contracts and negotiable instruments; agency; business organization; sales, warranties and security interests; personal and real property; estates and wills; and environmental law.

470 Transportation Management (3)
Prerequisite: Business 355 or consent of instructor. An overview of the relationship of management principles and concepts to the transportation industry (five modes) as the major component of the seven primary physical distribution activities (decision centers). Both domestic and international aspects are included.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar (3)
Prerequisite: Senior standing and consent of instructor. Special topics in management and marketing not regularly dealt with in other courses.

499 Honors Work (2-3)
Prerequisite: Senior standing. Independent work for honors students.

ECONOMICS

105 Survey of Economics (3)
An introduction to economic principles for non-business and non-economics majors. Current issue analysis rather than theoretical analysis is utilized to present and show the relevance of economic principles.

251 Principles of Economics (Micro) (3)
Prerequisite: Mathematics 121-122. Analysis of decision-making processes and economic equilibrium for the individual firm and consumer at an introductory level.

252 Principles of Economics (Macro) (3)
Prerequisite: Mathematics 121-122. Aggregate economic analysis examining the effects of fiscal and monetary policy upon aggregate employment, income, and prices at an introductory level.

301 (Business 301) Statistical Analysis for Business and Economics (3)
Prerequisite: Mathematics 121 and Economics 251, 252. Classification and presentation of business and economic data, statistical inference including estimation and hypothesis testing procedures, Bayesian inference, correlation and regression analysis, time series and index numbers.

302 (Business 302) Operations Research (3)
Prerequisite: Mathematics 121-122, Statistics 265 or Economics 301. Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control, game theory, queuing, and Markov chains.

305 (Environmental Studies 305) Environmental Economics (3)
Prerequisite: Economics 105, 251, or 252 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives.

315 Intermediate Price Theory (3)
Prerequisite: Economics 251, 252. A theoretical analysis of individual consumer and firm behavior and general equilibrium.

316 National Income Analysis (3)
Prerequisite: Economics 251, 252. A theoretical analysis of the determination of aggregate income, aggregate employment, and the average price level and the role of monetary and fiscal policy in the determination of such.

327 Money and Banking (3)
Prerequisite: Economics 251, 252. A theoretical and empirical analysis of the effects of money on aggregate income and employment and the average price level. Analysis of the tools and policy of the Federal Reserve. An overview of banks and other financial intermediaries.

336 Financial Institutions (3)
Prerequisite: Business 335 or consent of instructor. An examination of the workings of the money and capital markets including the manner in which financial institutions and markets play a role in the transmission of macro-financial policy actions to various sectors of the economy. The impact of these macro variables on the internal financial manager.

338 Public Finance (3)
Prerequisite: Consent of instructor. Study of state, local, and federal government revenues and expenditures: (1) Facts of public revenues and expenditures; (2) Theory of public sector-social goods, social balance, and fiscal neutrality; (3) Methods of achieving efficiency in government—Benefit-cost analysis, Program budgeting (PPB), and pricing of government services.

401 History of Economic Thought (3)
Prerequisite: Economics 315, 316 or consent of instructor. Scientific economic thought and philosophy from ancient to modern times. Open-ended as to dates of time period covered. Primary emphasis is on topics as opposed to schools of thought.

420 Managerial Economics (3)
Prerequisite: Economics 315 and Economics 301 or Statistics 265. Economic theory of the firm, mathematical models of the firm; the internal decision-making process.

426 Comparative Economic Systems (3)
Prerequisite: Consent of instructor. Analysis of economic systems operating under capitalism, socialism, communism, and fascism; institutions and organization of production and government; decision-making; distribution of income; problems of developing nations.

427 Labor Economics (3)
Prerequisite: Economics 251, 252. An analysis of the demand for and the supply of labor at the individual and the aggregate level, labor unions and collective bargaining.

428 Regional Growth and Development (3)
Prerequisite: Economics 251, 252. Theories of subnational or regional economic growth. Measures of regional economic growth. Policies to alleviate problems resulting from disparate rates of regional economic growth.

446 (Business 446) International Trade and Finance (3)
Prerequisite: Accounting 202, Economics 251, 252 or consent of instructor. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates and balance of payments problems.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar in Economics (3)
Prerequisite: Economics 315, 316 and consent of instructor. An examination of current problems in economics organized on a discussion-research basis. The content of the course will vary as changing conditions require the use of new approaches to deal with current issues.

499 Honors Work (2-3)
Prerequisite: Senior standing. Independent work for honors students.

CHEMISTRY

Dr. Levy, *chairman.* Dr. L. Adcock, Dr. Cahill, Dr. Hart, Dr. Hornack, Dr. Martin, Dr. Nance.

101-102 General Chemistry (3-3)
Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Normally taken concurrently with General Chemistry Laboratory (101-51-102-51).

101-51, 102-51 General Chemistry Laboratory (1-1)
Prerequisite or corequisite: Chemistry 101-102. Introduction to techniques and equipment in the chemistry laboratory; interpretation of experimental results. Quantitative and qualitative analysis included. Three laboratory hours each week.

107 Physical Science for Nurses (4)
A one-semester course designed for nursing students. Three lecture and three laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

311-312 Organic Chemistry (4-4)
Prerequisite: Chemistry 102. Introduction to the chemistry of carbon compounds, including structural theory, synthesis, and reaction mechanisms. Three lecture and three laboratory hours each week.

311-91,312-91 Advanced Techniques of Organic Chemistry (1-1)
Additional organic laboratory to accompany chemistry 311 and 312. Theory and practice of chromatographic methods of separation and spectroscopic methods of identification. Three laboratory hours each week.

321 Physical Chemistry (3)
Prerequisite: Chemistry 102, Physics 202, Mathematics 213. Chemical thermodynamics, reaction kinetics, and introduction to statistical mechanics. Three hours each week.

322 Physical Chemistry (3)
Prerequisite: Chemistry 102, Physics 202, Mathematics 213. Introduction to quantum mechanics with applications to the structure of atoms and molecules. Spectroscopy, statistical mechanics, and elementary nuclear and solid state theory. Three hours each week.

321-51,322-51 Physical Chemistry Laboratory (1-1)
Normally taken concurrently with Chemistry 321 and 322, respectively Three laboratory hours each week.

325 Brief Physical Chemistry (4)
Prerequisite: Chemistry 102 and one sequence in Physics. An abbreviated course in fundamentals of physical chemistry. Three lecture and two laboratory hours each week. May not be taken for credit after 321 has been passed.

333 (Environmental Studies 333) Analytical Chemistry in Environmental Problems (4)
Prerequisite: Chemistry 102. The theory and practice of (a) sampling and sample preparation (air, water, etc.), (b) selective methods of quantitative gravimetric and volumetric analysis, (c) instrumental techniques, and (d) monitoring systems. Two lecture and four laboratory hours each week.

335 Quantitative Analysis (4)
Prerequisite: Chemistry 102. Gravimetric and volumetric techniques, with some introduction to instrumental analysis. Two lecture and four laboratory hours each week.

355 History and Literature of Chemistry (1)
Prerequisite: Junior standing. Introduction to chemical literature and sources of information and to the historical development of chemistry. One lecture each week.

415 Advanced Organic Chemistry (3)
Prerequisite: Chemistry 312. Theoretical organic chemistry with emphasis on reaction mechanisms and special synthetic methods. Three lecture hours each week.

435 Advanced Analytical Chemistry (4)
Prerequisite: Chemistry 333 or 335 and 321-322. Theory and applications of modern analytical instrumentation and techniques. Two lecture and four laboratory hours each week.

445 Inorganic Chemistry (3)
Prerequisite: Chemistry 321-322. Advanced descriptive and theoretical inorganic chemistry. Three hours each week.

446 Advanced Inorganic Chemistry (3)
Prerequisite: Chemistry 445. Advanced topics in theoretical inorganic chemistry. Three hours each week.

465 Biochemistry (3)
Prerequisite: Chemistry 312. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; bioenergetics; regulatory mechanisms. Three hours each week.

467 Biochemical Methodology (3)
Prerequisite or corequisite: Biology 465 or Chemistry 465. A laboratory course dealing with the techniques and methodology of modern biological chemistry. Topics include radiochemical tracer studies, various types of chromatography, organelle isolation, enzymology, isolation and assay procedures for various biological molecules. One lecture and five laboratory hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar (1)
Prerequisite: Senior standing. Discussion of selected topics. One hour each week.

499 Honors Work in Chemistry (2-3)
Prerequisite: Second semester junior or senior standing. Independent study for honors students.

COMPUTER SCIENCE

(See Mathematical Sciences)

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA AND SPEECH

Dr. Rogers, *chairman*. Mrs. Fitzgibbon, Miss Gimple, Mr. Knowles, Mr. Swink, Mrs. Welch.

101 Stagecraft/Workshop (2)
Theatre stage orientation through the handling of scenery, properties, costumes and lights. Practical applications of theatre working in conjunction with weekly play production. Two four-hour sessions per week. Summer sessions only.

102 Stagecraft/Workshop (2)
Prerequisite: D&S 101 or consent of the instructor. Continued application of stage work in scenery, properties, costumes and lights in conjunction with weekly play production. Two four-hour sessions per week. Summer sessions only.

115 Fundamentals of Speech (3)
Principles and basic skills in speaking and listening; classroom exercise and discussion. Three hours each week.

116 Theory of Speech Communication (3)
Prerequisite: Drama and Speech 115 or consent of instructor. Orientation in the areas of speech. Analysis of content and delivery factors used in persuasive communication. Three hours each week.

170 Intercollegiate Debate (1)
Open to all students regardless of standing who participate in intercollegiate debate for up to eight hours of academic credit. One hour each week.

201 Stagecraft and Shop (2)
Basic principles of scenic materials and equipment. Use of materials, methods of construction and handling of scenery and properties. One lecture and three laboratory hours per week plus participation in the University Theatre productions required.

202 Stagecraft and Shop (2)
Prerequisite: 201 or consent of instructor. Practical training in workshop organization and technical production plus basic principles of theatrical graphics. One lecture and three laboratory hours each week plus participation in University Theatre productions required.

205 Stage Make-up (2)
Theory and practice in the application of make-up for theatrical performances. Four laboratory hours each week.

215 Oral Interpretation (3)
Analysis and practice in reading aloud before an audience a variety of literary selections. Three hours each week.

216 Voice and Diction (3)
Principles and use of the voice; exercises in vocal variety, articulation, and pronunciation. Three hours each week.

225 History and Appreciation of Film (3)
A survey through film of the development of motion picture from its primitive beginnings to the advent of sound film. A visual illustration of the basic aesthetic principles controlling film as art.

231 Acting I (4)
Prerequisite: Permission of instructor. Use of body and voice as instruments of expression; development of acting exercise structure with mind and breathing control practiced. Three class hours and 2½ laboratory hours each week.

232 Acting II (4)
Prerequisite: Acting I and/or permission of instructor. Continuing and expanding work on the use of body and voice. Further development of acting exercise structure with emphasis on improvisation and one scene study. Three class hours and 2½ laboratory hours each week.

270 Parliamentary Procedure (1)
Principles and rules governing deliberative assemblies. One hour each week.

275 The Art of Persuasive Speech (3)
Prerequisite: Drama and Speech 116 or consent of instructor. Power of speech as a tool to control thought processes of others in both negative and positive ways. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Scenic Design (3)
Prerequisite: Drama and Speech 202 or consent of instructor. Play interpretation through the scenic elements. Problems in theatre graphics, technique applications, script interpretation, scenic design and style. Two class hours and two laboratory hours each week.

306 Stage Lighting (3)
Prerequisite: Drama and Speech 201 and/or 202 or consent of instructor. Basic techniques of theatrical lighting. Includes fundaments of electricity, lighting equipment, and the use of color. Two class hours and two laboratory hours each week.

307 Theatre Production (3)
Lectures and practical experience in all phases of production: staging, management, publicity, public relations, properties, house management, costumes, special effects and sound included. Deals with the responsibilities and actual duties of all personnel. Three lecture hours each week.

321-322 Theatre History (3-3)
321: Greek beginning to the Romantic Period. 322: 17th century through 19th century. Three hours each week.

325 Drama and Social Change (3)
Study of the patterns and results of social change on universal life as documented and portrayed in drama. Three hours each week.

333 Acting III (1-4)
Prerequisite: Acting I and II and/or consent of instructor. Scene study. A contractual course with individual student commitment concerning the number of scene studies to be attempted. Can be taken for up to four hours accumulative maximum.

345 Playwriting I (3)
Analysis of one-act plays and their construction; the writing of an original one-act play required. Three hours each week.

355 Directing I (3)
Fundamental principles of directing with emphasis on one-act productions. Three hours each week.

375 Group Discussion (3)
Prerequisite: Drama and Speech 115, 116, or consent of instructor. The study of and practice in oral group methodologies, including panel, forum, and symposium speaking. Three hours each week.

376 Debate (3)
Prerequisite: Drama and Speech 115, 170, or consent of instructor. Principles of argumentation and style in their application to formal debate; practice in conventional debate form on current national intercollegiate debate resolution. Three hours each week.

420 History of Rhetoric and Public Address (3)
A survey of the development of rhetorical principles and style as evidenced by significant historical personalities and the literary genre of public address. Three hours each week.

425 Aesthetics of Film (3)
A study of the various forms and content of film as controlled by the film director. The theoretical aspects of film as a work of art. Two class hours and two laboratory hours each week.

445 Playwriting II (3)
Prerequisite: Drama and Speech 345 or permission of instructor. Ad-

vanced techniques of playwriting with emphasis on full length play; the writing of an original full length play. Three hours each week.

455 Directing II (3)
Prerequisite: Drama and Speech 355. Advanced techniques in the direction of plays for the stage. Three hours each week.

461, 462 Seminar in Dramatic Theory (3,3)
Prerequisite: Senior standing or consent of instructor. Growth and results of dramatic theory on theatre. 461: Aristotle to Romantic Period. 462: Ibsen to the present. Three hours each week.

465 Mass Communications in Society (3)
A seminar encompassing the development of mass communications, the obligations of the press, radio, and television, the government and the right to know, censorship, invasion of privacy and other effects of mass communications. Three hours each week.

485 Senior Project (3)
Every major must choose a specific area in drama for a senior project. The proposal for planning and executing a public presentation in the chosen area must be submitted to the faculty of the Department of Drama and Speech for approval prior to the semester during which the project will be attempted.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Drama and Speech (2-3)
Prerequisite: Senior standing . Independent study for honors students.

EARTH SCIENCES

Dr. Duncan Randall, *acting chairman.* Mr. Ainsley, Dr. Cleary, Mr. Dempsey, Dr. Thayer, Dr. Young, Dr. Zullo.

210 Evolution of Man and the Development of Culture (3)
Critical analysis of the fossil evidence leading to current theories of human evolution. Examination and correleation of fossil remains and artifacts preserved in the geologic record as related to the anatomy and behavior of living human and non-human primate groups. Three lecture hours each week.

230 Earth Science Graphics (3)
Methods of graphic expression related to natural science in general; use of various media; methods of reproducing graphic works; introduction to aerial photography interpretation and basic map use. One lecture and four laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

390 History of Earth Sciences (3)
Prerequisite: Junior standing with a departmental concentration or consent of the staff. Development of scientific thought in the earth sciences; study

of the traditional backgrounds to modern research in earth sciences. Three hours each week.

490 Research in the Earth Sciences (3)
Prerequisite: Senior standing with a departmental concentration. Research on selected problems in the earth sciences. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar (1)
Prerequisite: Senior standing with a departmental concentration or consent of the staff. Student, faculty and guest seminars on their research, and the philosophy and methodology relating to the earth sciences. May be repeated for one additional hour credit. One hour each week.

499 Honors Work in Earth Sciences (2-3)
Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

ENGINEERING

111 Engineering Graphics (3)
Fundamentals of drafting and use of instruments, lettering, geometric constructions, orthographic projection, auxiliaries, sections, fasteners, dimensioning, freehand sketching; axonemetric, oblique, and perspective views and fundamentals of working drawings. Basic construction and topographic drafting, inking, methods of reproduction; descriptive geometry, graphical solution of spatial point, line and plane problems. One lecture and three laborarory hours each week.

211-212 Plane Surveying (3-3)
Introduction to basic concepts in plane surveying, elementary geodetic surveying, and photogrammetry. Two lecture and three laboratory hours each week.

GEOGRAPHY

135 Introduction to Physical Geography (4)
Maps and map projections and their uses; analysis of the spatial distribution and character of environmental elements, including climate, land forms, vegetation, and soils. Three lecture and two laboratory hours each week.

145 Introduction to Human Geography (3)
Concepts and methods of human geography with emphasis on current problems related to the spatial distribution of population. Three hours each week.

215 Economic Geography (3)
Economic activities of man, their location and relation to physical and economic conditions of the environment. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

330 Elementary Cartography (3)
Techniques of drafting, map projection, and map design; methods of data

representation on maps. One lecture and four laboratory hours each week.

335 Introduction to Geomorphology (4)
Prerequisite: Geography 135 or Geology 105. Description and classification of land forms; analysis of the geologic, climatic and biologic factors involved in their formation; survey of geomorphic provinces of the United States. Three lecture and two laboratory hours each week.

350 Historical Geography of the United States (3)
Prerequisite: History 231 or Geography 145 or consent of the instructor. A study of the evolution of the cultural landscapes and the spatial patterns of the area that is now the United States. Examination of past geographies and of geographical change through time. Three hours each week.

380 Regional Geography of the United States (3)
A regional analysis of physical characteristics, resource base and human geography of the United States. Three hours each week.

385 Regional Geography of Europe (3)
A regional analysis of the physical and cultural features of Europe. Three hours each week.

415 Industrial Geography (3)
Prerequisite: Credit in geography or economics or consent of instructor. Factors underlying the distribution, development and character of major world industrial regions. Three hours each week.

417 Urban Geography (3)
Prerequisite: Credit in a social science or in history or consent of instructor. Analysis of the spatial distribution, growth, function and structure of urban places with emphasis on urban development and problems in the United States. Three hours each week.

430 Climatology (3)
Prerequisite: Geography 135 or consent of instructor. The spatial distribution and character of climates, their relation to other elements of the environment and to human activities. Three hours each week.

432 Biogeography (3)
Prerequisite: Credit in physical geography or in geology or consent of instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their development by physiographic, climatic and evolutionary events of the past. Three hours each week.

455 Political Geography (3)
Prerequisite: Credit in a social science or in history or consent of instructor. Geographic factors in the development of nations and in contemporary national and international affairs. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Geography (2-3)
Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

GEOLOGY

105 Physical Geology (4)
Study of the earth and the moon; constitution of the earth's crust; weathering, erosional and depositional processes; mountain building forces and the earth's internal composition. Three lecture and two laboratory hours each week.

115 Historical Geology (4)
Geologic history of the earth; methods of interpreting the past; ancient environments; development and evolution of life. Required field trips. Three lecture and two laboratory hours each week.

120 (Environmental Studies 120) Environmental Geology (3)
Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

205 Introduction to Oceanography (3)
An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of oceanography; resources of the ocean. Required field trips. Three hours each week.

215 Mineralogy—4 hours
Prerequisite: Geology 105; *Corequisite:* Chemistry 101, including laboratory. A study of the principles of chemical bonding and crystaline structure in naturally-occuring solids, including native elements, and sulfide, oxide, halide, carbonate, sulfate, and silicate minerals; principles governing the geological occurrence of minerals; techniques of mineral identification: geometry of crystals. Required field trips. Three lecture and two laboratory hours each week. Fall.

216 Igneous and Metamorphic Petrology (4)
Prerequisite: Geology 215. Theories of genesis of the major igneous and metamorphic rocks in the light of chemistry, mineralogy, structure and texture, field associations, and experimental data. The relationship between igneous and metamorphic processes and crust-mantle tectonic activity. Required field trips. Three lecture and two laboratory hours each week.

217 Sedimentary Petrology (4)
Prerequisite: Geology 216. Introduction to the identification, classification and origins of sediments and sedimentary rocks. Emphasis is placed on physical processes controlling sedimentation and study of modern and ancient depositional environments. Three lecture and two laboaratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Marine Geology (4)
Prerequisite: Geology 105. Topography, sediments, structure and geologic history of the marine and estuarine environment. Required field trips. Three lecture and three laboratory hours each week.

315 Stratigraphy (4)
Prerequisite: Geology 105 and 115. An introduction to the description, organization and classification of layered rocks. Emphasis is placed on

the practical use of stratigraphic principles in elucidating earth history. Three lecture and two laboratory hours each week.

316 Structural Geology (4)
Prerequisite: Geology 216 or consent of instructor. Study of deformation of the earth's crust and interpretation of the structural relationships within rocks reviewed in light of plate tectonics. Required field trips. Three lecture and two laboratory hours each week.

330 Invertebrate Paleontology (4)
Prerequisite: Geology 105 or 115. History of fossil protistans and invertebrates with emphasis on the principles of paleontology, systematics and evolution, and on the use of fossils in stratigraphic correlation. Required field trips. Three lecture and two laboratory hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Geology (2-3)
Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

ECONOMICS

(See Business and Economics)

EDUCATION

Dr. Harkin, *chairman*. Dr. Bachner, Dr. Bartolome, Dr. Doss, Dr. Hulon, Mrs. Stike, Dr.Wagoner.

215 Orientation to Teaching (3)
Development of understanding of the teaching profession; observation and participation in cooperating schools. Three lecture and two observation hours each week.

275 Introduction to Exceptional Children (3)
The types of exceptionality including mental retardation, learning disabilities, speech and hearing, visual handicapped, emotional disturbance, physical handicapped and giftedness.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

315 History and Philosophy of Education (3)
Historical and philosophical foundations of education as related to the American school. Three hours each week.

325 School-Community Relations (3)
Required of students concentrating in early childhood education. Methods of improving school-community relations. Three hours each week.

335 The Teaching of Social Studies (3)
Prerequisite: Education 215. Materials and methods for teaching social studies. Three hours each week.

345 Black Literature and Resources for Teachers (3)
A survey of Black literature, including the examination of materials published for classroom use in the public schools and the authors who have made contributions to this field. Three hours each week.

355 Books and Materials for Early Childhood Education (3)
The selection and evaluation of books written for children. Appraisal of illustrations and other instructional media for preschool and primary children; their functions and correlation with the early childhood curriculum will be studied. Three hours each week.

361 The Teaching of Reading (3)
Basic principles and approaches to the teaching of reading; emphasis on the developmental skills taught on the K-3 level. Three hours each week.

365 Teaching of Arithmetic, Grades K-3 (3)
Prerequisite: Education 215. Study of methods and materials for the teaching of arithmetic kindergarten through third grade. Different theories of thinking and language development and implications for the teaching of arithmetic in the early grades will be studied. Three hours each week.

371 Improvement in Reading Instruction (3)
Prerequisite: Education 215. Development of reading skills and correction of reading deficiencies. Required for certification grades 4-12 (all subject areas). Three hours each week.

385 Introduction to Mental Retardation (3)
A survey course with emphasis on historical aspects, social and family relationships, characteristics, diagnosis, institutionalization and etiology of mental retardation.

386 Introduction to Learning Disabilities (3)
A survey course with emphasis on historical aspects, social and family relationships, characteristics, diagnoses and etiology of learning disabled.

390 Teaching Techniques for the Mildly Handicapped Child (3)
Prerequisite: Education 275 or consent of instructor. Development of the ability to use appropriate strategies, methods, techniques, and materials and the ability to design, implement, and evaluate learning programs for mildly handicapped children.

395 Formal and Informal Diagnostic Techniques in Special Education (3)
Various ways and means of evaluation and diagnosing learning difficulties of exceptional children.

396 Prescription Development in Special Education (3)
Prerequisite: Education 395 or consent of instructor. Development of educational prescriptions for exceptional children with emphasis on the mildly handicapped child.

415 Teaching Practices and Techniques (3)
Development of techniques of teaching; successful practices in teaching. Three hours each week.

425 Basic Philosophies of Education (3)
Philosophies of education and their influence on the curriculum. Three hours each week.

445 Guidance in the School (3)
Introduction to purposes, processes, organization and materials in counseling programs. Emphasis on nonspecialist viewpoint. Three hours each week.

459 Social Foundations of Education (6)
Corequisite: Education 460. *Prerequisite:* Education 215, 315 and 361 or 371 as appropriate, Psychology 220 or 221 as appropriate, and consent of the Chairman of the Department of Education. Social foundations of education as related to the American school.

460 Theory and Practice of Teaching (9)
Corequisite: Education 459. *Prerequisite:* Education 215, 315, 361 or 371 as appropriate, Psychology 220, 221 as appropriate and consent of the Chairman of the Department of Education. Materials and methods of instruction emphasized in the school setting through a sustained period of teaching with supervision. Areas of certification: 1. Early Childhood Education; 2. English; 3. French; 4. Intermediate Education; 5. Mathematics; 6. Music; 7. Physical Education; 8. Science, or single subjects: Biology, Chemistry, Earth Sciences or Physics; 9. Social Studies, or single subjects: Anthropology, Economics, Geography, History, Political Science, or Sociology; 10. Spanish.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Education (2-3)
Prerequisite: Senior standing. Independent study for honors students.

ENGINEERING

(See Earth Sciences)

ENGLISH

Dr. Corbett, *chairman*. Dr. Collier, Mrs. Foushee, Mr. McCall, Mrs. Pearsall, Dr. Powles, Mr. Rosselot, Dr. Stokes, Mr. Tucker.

101-102 Composition (3-3)
Work in grammar and various types of composition; frequent themes. Three hours each week.

110 Introduction to Literature (3)
An interpretive study of various forms of literature.

211, 212 Great British Writers (3,3)
Prerequisite: English 102. 211: Writings before 1800; 212: Writings since 1800. Three hours each week.

219 General Fiction (3)
A thematic approach to fiction for students who enjoy extensive reading of current novels.

245 Journalism (3)
Prerequisite: English 101. Introduction to news writing. Includes news stories, editorials, feature articles and reviews. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

301 Scientific Writing (3)
Prerequisite: English 102. Techniques and structure in scientific writing, emphasizing abstracts, proposals, progress reports, final reports, oral reports, journal articles, and professional papers.

305 Advanced Grammar (3)
Prerequisite: English 102. Systems of grammar; history of the English language. Three hours each week.

306 Advanced Composition (3)
Prerequisite: English 102. Rhetorical principles with emphasis on style; criticism of individual compositions. Three hours each week.

307-308 Creative Writing I, II (3-3)
307: *Prerequisite:* English 102. Instruction in writing fiction, including critical evaluation by instructor and class of student's original works. Three hours each week. 308: *Prerequisite:* Creative Writing I or consent of instructor. Intensive practice in writing fiction or poetry, with emphasis upon developing the individual student's interests and abilities. Three hours each week.

309 Poetry Writing (3)
Prerequisite: English 102. Instruction in writing poetry. Criticism and class discussion of original poems by students. Includes practice in various verse forms as well as developing students' individual abilities.

315 Twentieth Century European Literature (3)
Prerequisite: English 102. Three hours each week.

316 Romantic Literature (3)
Prerequisite: English 102. Major and minor poetry and prose, 1783-1837. Emphasis on new trends in poetry, the role of the artist, and Romantic critical theory. Three hours each week.

317 Victorian Literature (3)
Prerequisite: English 102. Poetry and prose from 1837-1901. Artistic achievements and literary movements. Intellectual and social problems of the Victorians reflected in their literature. Three hours each week.

320 Early American Literature (3)
Prerequisite: English 102. 17th and 18th century literature. Three hours each week.

321 American Romanticism (3)
Prerequisite: English 102. Literature from 1800-1865. Three hours each week.

322 American Realism (3)
Prerequisite: English 102. Literature from 1865-1900. Three hours each week.

325 Twentieth Century American Fiction (3)
Prerequisite: English 102. Three hours each week.

326 Southern American Literature (3)
Prerequisite: English 102. 19th and 20th century fiction. Three hours each week.

327 North Carolina Literature (3)
Prerequisite: English 102. Interpretive study of writers such as Thomas Wolfe, Randall Jarrell, and others. Three hours each week.

330 Interpretation of Poetry (3)
Prerequisite: English 102. A critical approach to theme, style, and form. Three hours each week.

335 Major Forms of Drama (3)
Prerequisite: English 102. Representative comedies, tragedies, and other forms from the classical to the modern period. Three hours each week.

336 The Short Story (3)
Prerequisite: English 102. Analysis and interpretation. Three hours each week.

339 Modern British and American Drama (3)
Prerequisite: English 102. A study of representative plays by such dramatists as Shaw, Yeats, O'Casey, Maugham, O'Neill, Hellman, Odets, Williams, Osborne, Pinter, and Miller, with attention to themes and techniques reflecting the social, political, philosophical, and aesthetic concerns of the twentieth century. Three hours each week.

341 English Novel of the Mid-1800's (3)
Prerequisite: English 102. Readings in various types of novels. Three hours each week.

345 Literature for Youthful Readers (3)
Prerequisite: English 102. For students in intermediate education (grades 4-9). Three hours each week.

351 Shakespeare: The Comedies (3)
Prerequisite: English 102. Three hours each week.

352 Shakespeare: The Tragedies (3)
Prerequisite: English 102. Three hours each week.

353 Shakespeare: The Histories (3)
Prerequisite: English 102. Three hours each week.

385 Soviet Russian Literature (in translation) (3)
Prerequisite: English 102. Interpretation of Russian literature since the Revolution, including an awareness of the effects of politics on that literature. Includes such writers as Mayakovsky, Bulgakov, Pasternak, Solzhenitsyn, and Yevtushenko.

412 Prose and Poetry of the English Renaissance (3)
Prerequisite: English 102. Development of the literary renaissance. Poetry from Skelton to Jonson, prose from More to Bacon. Three hours each week.

415 The Eighteenth Century (3)
Prerequisite: English 102. Major literary trends of the eighteenth century: neoclassical poetry and satire, the rise of the periodical and the novel, the shift to Romanticism. Includes Restoration poetry and drama. Three hours each week.

425 The English Novel (3)
Prerequisite: English 102. Representative works prior to 1915. Three hours each week.

426 The American Novel (3)
Prerequisite: English 102. Representative works from 1798 to 1900. Three hours each week.

430 Modern Poetry (3)
Prerequisite: English 102. Twentieth century British and American poets. Major trends in poetry from the Imagists to the present. Three hours each week.

455 Chaucer (3)
Prerequisite: English 102. Three hours each week.

456 Milton (3)
Prerequisite: English 102. Three hours each week.

460 World Masterpieces (3)
Prerequisite: English 102. Selections in translation from the world's best literature. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in English (2-3)
Prerequisite: Junior or senior standing. Independent study for honors students.

ENVIRONMENTAL STUDIES

Dr. Bane, *chairman.* Dr. L. Adcock, Dr. Ahmad, Dr. W. Hall, Dr. H. Hernandez, Dr. Hosier, Dr. Jackson, Mr. Sharp, Dr. Thayer.

106 (Physics 106) Environmental Physics (3)
A study of the environment and the interrelation of its physical systems. Emphasis on energy sources, efficiency of their use and the effect on the environment. Three hours each week.

120 (Geology 120) Environmental Geology (3)
Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

195 Introduction to Environmental Studies (3)
Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on current environmental problems. Three hours each week.

228 Mathematical Modeling with Applications to Environmental Problems (3)
Prerequisites: MAT 112, 115, or 122, CSC 111, any statistics course. An introductory treatment of mathematical and computer modeling techniques which have application to environmental problems of an ecological, biological, social, economic, political and behavioral nature. Models to be examined will be both deterministic and stochastic and

will include graph and network models, Markov processes, linear programming, Monte Carlo techniques, simulation, and game theoretic models. Group work will be especially encouraged.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of the Environmental Studies Chairman.

305 (Economics 305) Environmental Economics (3)
Prerequisite: Economics 251, 252, or 205 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives. Three hours each week.

316 (Sociology 316) Human Ecology (3)
Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

333 (Chemistry 333) Analytical Chemistry in Environmental Problems (4)
Prerequisite: Chemistry 102. The theory and practice of (a) sampling and sample preparation (air, water, etc.); (b) selective methods of quantitative gravimetric and volumetric analysis; (c) instrumental techniques; and (d) monitoring systems. Two lecture and four laboratory hours each week.
will include graph and network models, Markov processes, linear programming, Monte Carlo techniques, simulation, and game theoretic models. Group work will be especially encouraged.

370 (Psychology 370) Environmental Psychology (3)
Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

490 Senior Project (1-6)
Prerequisite: Senior standing and permission of instructor. A research project and seminar under the supervision of a committee of environmental studies faculty. The project should involve the investigation of a current problem in the Environmental Studies field, and the preparation of a written report on the findings.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of the Environmental Studies Chairman.

495 Seminar in Environmental Studies (3)
Prerequisite: Senior standing. Synthetic approach to the study of Environmental Science. Development of the "holistic" view of the environment, its interrelationship with science, technology, and society in a seminar format.

499 Honors Work in Environmental Studies (2-3)
Prerequisite: Senior standing. Independent study for honors students.

FRENCH

(See Modern Languages)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

GERMAN

(See Modern Languages)

HISTORY

Dr. Crowgey, *chairman*. Mr. W. Allen, Mr. Cooper, Dr. Gay. Mr. Haley, Mr. McLean, Dr. Moseley, Dr. Usilton, Dr. Watson.

111,112 Western Civilization (3,3)
111: History of civilization to 1650. 112: History of civilization from 1650 to the present. Three hours each week.

231,232 American History (3,3)
231: United States to 1865. 232: United States from 1865 to the present. Three hours each week.

261,262 Afro-American History (3,3)
261: African background through the Civil War. 262: Civil War to the present. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 The Ancient Near East (3)
Prerequisite: History 111-112 or consent of the instructor. An intensive political and cultural study of ancient Babylonian, Egyptian, and other Near Eastern civilizations. Three hours each week.

306 Ancient Greece and Rome (3)
Prerequisite: History 111-112 or consent of the instructor. A study of the civilizations of ancient Greece and Rome with special emphasis on the Greek classical period and the Pax Romana. Three hours each week.

311 Europe, 1815 to 1870 (3)
Prerequisite: History 111-112 or consent of the instructor. Development of Europe between 1815 and 1870, emphasizing industrial revolution, conservatism, liberalism, socialism, and nationalism. Three hours each week.

312 Europe, 1870 to 1918 (3)
Prerequisite: History 111-112 or consent of the instructor. Growing complexities of imperialism, democracy, and socialism in era leading into First World War. Three hours each week.

313 Europe, 1918 to 1945 (3)
Prerequisite: History 111-112 or consent of the instructor. Build-up and collapse of collective security; World War II. Three hours each week.

314 Europe, 1945 to the Present (3)
Prerequisite: History 111-112 or consent of the instructor. Contemporary Europe in the World Community. Three hours each week.

315 Medieval Civilization (3)
Prerequisite: History 111-112 or consent of the instructor. A study of medieval institutions and culture with special emphasis on feudalism, manorialism, and the religious system of the period. Three hours each week.

316 Political History of the Middle Ages (3)
Prerequisite: History 111-112 or consent of the instructor. A study of the political development of medieval Europe from the decline of the Roman Empire in the West to the emergence of the modern period. Three hours each week.

317 The Renaissance and the Reformation (3)
Prerequisite: History 111-112 or consent of the instructor. Origin and early development of modern European institutions with emphasis on cultural and religious achievements and on political and economic thought. Three hours each week.

325 Europe and Absolutism (3)
Prerequisite: History 111-112 or consent of the instructor. Europe in the Age of Reason and enlightened despotism, 1648-1789. Three hours each week.

326 The French Revolution and Napoleon (3)
Prerequisite: History 111-112 or consent of the instructor. Europe during French Revolutionary and Napoleonic War periods, 1789-1815. Three hours each week.

335 Diplomatic History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. American diplomatic activities and foreign relations since 1775. Three hours each week.

336 Constitutional History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. Development of the Constitution through decisions of Supreme Court; evolution of federal authority in relation to distribution of governmental power, society and economic life. Three hours each week.

337 Social and Intellectual History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. American life and thought from colonial period to present; special emphasis on institutions and ideas having lasting impact on Americans. Three hours each week.

338 Colonial History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. Formation and growth of American colonies to the conclusion of the French and Indian War (1763). Three hours each week.

339 Economic History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. An historical study of American agriculture, labor, industry, transportation, and banking with emphasis on the relation of the government to the economy. Three hours each week.

351,352 Latin American History (3,3)
Prerequisite: History 111-112 or History 231-232 or consent of the instructor. 351: Origins and development of Latin American colonies and their struggle for independence. 352: Political, economic, and social institutions and problems of Latin American nations from attainment of independence to present. Three hours each week.

400 Historiography (3)
Prerequisite: History 111-112 or History 231-232 or consent of the instructor.

434 The American Revolution, 1763-1789 (3)
Prerequisite: History 231-232 or consent of the instructor. Organization of empire, colonial social structure, events preceding revolution, the War for Independence, politics of the new nation, drafting and ratification of the new Constitution. Three hours each week.

435 The Early United States Republic (3)
Prerequisite: History 231-232 or consent of the instructor. Era from inauguration of George Washington through Jacksonian democracy to advent of American Civil War. Three hours each week.

436 Twentieth Century America (3)
Prerequisite: History 231-232 or consent of the instructor. The United States from 1900 to the present. Three hours each week.

445 North Carolina, 1524 to 1835 (3)
Prerequisite: History 231-232 or consent of the instructor. Political, economic and social development of North Carolina in the colonial and federal periods to the Constitution of 1835. Three hours each week.

446 North Carolina, 1835 to the Present (3)
Prerequisite: History 231-232 or consent of the instructor. Political, economic and social development of North Carolina in the nineteenth and twentieth centuries. Three hours each week.

447 The Old South (3)
Prerequisite: History 231-232 or consent of the instructor. The South from the colonial period to the Civil War with emphasis on political, economic, and social institutions distinctive to the South. Three hours each week.

448 The New South (3)
Prerequisite: History 231-232 or consent of the instructor. Aftermath of Reconstruction, rise of the New South, effects of industrialism, continuation and decline of sectionalism. Three hours each week.

449 The Civil War and Reconstruction (3)
Prerequisite: History 231-232 or consent of the instructor. The American Civil War and Reconstruction of the South through 1877. Three hours each week.

471,472 History of Great Britain (3,3)
Prerequisite: History 111-112 or consent of the instructor. 471: Roman Britain to 1688. 472: 1688 to the present. Three hours each week.

473 History of Canada (3)
Prerequisite: History 111-112 or History 231-232 or consent of the instructor. A brief survey of Canada under the French; development under British control; evolution of the Dominion; relations with the United States and British Commonwealth of Nations. Three hours each week.

474 History of Ireland (3)
Prerequisite: History 111-112 or consent of the instructor. A brief survey of the history of Ireland from Neolithic times to the present, with emphasis on the Celtic culture, Christian influences, and the religio-political conflicts of the 19th and 20th centuries. Three hours each week.

481,482 History of Russia (3)
Prerequisite: History 111-112 or consent of the instructor. 481: To the Bolshevik Revolution. 482: From the Bolshevik Revolution to the present. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in History (2-3)
Prerequisite: Senior standing. Individual study for honors students.

MARINE BIOLOGY

(See Biology)

MATHEMATICAL SCIENCES

Dr. Toney, *chairman.* Mr. Brown, Dr. Crews, Dr. Dankel, Dr. Greim, Mr. Gurganus, Dr. Halsey, Dr. V. Hernandez, Mr. Long, Mr. Lupton, Dr. Norris, Mr. Trivette.

COMPUTER SCIENCE

105 Survey of Computer Applications (2)
An introduction to data processing for non-majors with an emphasis on understanding capabilities without engineering or programming skill. History and structure of computer systems. Concepts of simulation, operational control, information management, and time-sharing with related terminology. Types of errors in computer based systems. Social implications of the future potential of computer technology. Practice with using programs in the university library. Two hours each week.

111 Introduction to Computing Techniques (2)
Prerequisite or corequisite: Mathematics 111 or 115. Algorithms and computer systems. Data representation. Organization and characteristics of computers. Survey of computers, systems, and applications. A programming laboratory must be taken concurrently. Two hours each week.

115 Programming Laboratory—FORTRAN (1)
Prerequisite or corequisite: Computer Science 111. Elementary programming techniques. Debugging and verification of programs. Computer solution of numeric problems. One two-hour laboratory each week.

116 Programming Laboratory—PL/1 (1)
Prerequisite or corequisite: Computer Science 111. Elementary programming techniques. Debugging and verification of programs. Computer solution of numeric and non-numeric problems. One two-hour laboratory each week.

117 Programming Laboratory—COBOL (1)
Prerequisite or corequisite: Computer Science 111. Elementary programming techniques. Debugging and verification of programs. Computer solution of management problems. One two-hour laboratory each week.

118 Programming Laboratory—Interactive (1)
Prerequisite or corequisite: Computer Science 111. BASIC programming. Debugging and verification of programs. Computer solution of problems using interactive techniques. One two-hour laboratory each week.

211 Assembly Language and Computer Organization (3)
Prerequisite: Computer Science 111. Computer structure, machine language, instruction execution, addressing techniques and digital representation of data. Computer systems organization, logic design, microprogramming, and interpreters. Symbolic coding and assembly systems, macro definition and generation, and program segmentation and linkage. Systems and utility programs, programming techniques, and recent developments in computing. Several computer projects to illustrate basic machine structure and programming techniques. Two lecture and two laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophmore standing and consent of department chairman.

305 Computer Graphics (3)
Prerequisite: Computer Science 111 and Mathematics 213. Display memory generation of points, vectors, etc. Interactive versus passive graphics. Analog storage of images on microfilm, etc. Digitizing and digital storage. Pattern recognition by features, syntax tables, random nets, etc. Data structures and graphics software. The mathematics of three-dimensions, projections, and the hidden-line problem. "Graphical programs," computer-aided design and instruction, and animated movies. Three hours each week.

311 Programming Languages (3)
Prerequisite: Computer Science 111 and 331. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, prefix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures. Three hours each week.

325 (Mathematics 325) Numerical Algorithms (3)
Prerequisite: Computer Science 111 and Mathematics 212. An introduction

to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

331 (Mathematics 331) Discrete Structures (3)
Prerequisite: Computer Science 111. Review of set algebra including mappings and relations. Algebraic structures including semigroups and groups. Elements of the theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science. Three hours each week.

332 Data Structures (3)
Prerequisite: Computer Science 331. Basic concepts of data. Linear lists, strings, arrays, and orthogonal lists. Representation of trees and graphs. Storage systems and structures, and storage allocation and collection. Multilinked structures. Symbol tables and searching techniques. Sorting (ordering) techniques. Formal specification of data structures, data structures in programming languages, and generalized data management systems. Three hours each week.

340 Computer Organization (3)
Prerequisite: Computer Science 211 and 331. Basic digital circuits, Boolean algebra and combinational logic. Data representation and transfer, and digital arithmetic. Digital storage and accessing, control functions, input-output facilities, system organization, and reliability. Description and simulation techniques. Features needed for multiprogramming, multiprocessing, and realtime systems. Other advanced topics and alternate organizations. Three hours each week.

410 Compiler Construction (3)
Prerequisite: Computer Science 311 and 332. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping. Three hours each week.

415 Formal Languages and Syntactic Analysis (3)
Prerequisite: Computer Science 311 and 332. Definition of formal grammars: arithmetic expressions and precedence grammars, context-free and finite-state grammars. Algorithms for syntactic analysis: recognizers, backtracking, operator precedence techniques. Semantics of grammatical constructs: reductive grammars, Floyd productions, simple syntactical compilation. Relationship between formal languages and automata. Three hours each week.

420 Simulation Techniques (3)
Prerequisite: Computer Science 331, Statistics 361. Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to, or review of, queueing theory and stochastic processes. Comparison of discrete change simulation languages. Simulation methodology including generation of random numbers and variates, design of simulation experiments for optimization, analysis of data generated by simulation experiments, and validation of simulation models and results. Selected applications of simulation. Three hours each week.

425 (Mathematics 425) Numerical Analysis (3)
Prerequisite: Mathematics 315, Computer Science 325. A thorough treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers. Three hours each week.

431 Switching Theory (3)
Prerequisite: Computer Science 331. Switching algebra, gate network analysis and synthesis, Boolean algebra, combinational circuit minimization, sequential circuit analysis and synthesis, sequential circuit state minimization, hazards and races, and elementary number systems and codes. Three hours each week.

432 Sequential Machines (3)
Prerequisite: Computer Science 431. Definition and representation of finite state automata and sequential machines. Equivalence of states and machines, congruence, reduced machines, and analysis and synthesis of machines. Decision problems of finite automata, partitions with the substitution property, generalized and incomplete machines, semigroups and machines, probabilistic automata, and other topics. Three hours each week.

435 Theory of Computability (3)
Prerequisite: Computer Science 331. Introduction to Turing machines, Wang machines, Shepherdson-'Sturgis, and other machines. Godel numbering and unsolvability results, the halting problem. Post's correspondence problem, and relative uncomputability. Machines with restricted memory access, limited memory, and limited computing time. Recursive function theory and complexity classification. Models of computation including relationships to algorithms and programming. Three hours each week.

445 Systems Programming (3)
Prerequisite: Computer Science 311, 332 and 340. Review of batch process systems programs, their components, operating characteristics, user services and their limitations. Implementation techniques for parallel processing of input-output and interrupt handling. Overall structure of multiprogramming systems on multiprocessor hardware configurations. Details on addressing techniques, core management, file system design and management, system accounting, and other user-related services. Traffic control, interprocess communication, design of system modules, and interfaces. System updating, documentation, and operation. Three hours each week.

475 Topics in Computer Science (3)
Prerequisite: Senior standing and permission of instructor. Topics of current interest in computer science not covered in existing courses. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Seminar in Computer Science (1)
Prerequisite: Junior or senior standing and consent of instructor.

499 Honors Work in Computer Science (2-3)
Prerequisite: Eligibility for honors program. Individual study for honors students.

MATHEMATICS

In general, Mathematics is sequential in nature. Therefore, successful mastery of each course in a sequence is necessary in order to be adequately prepared for the next course. In light of this, it is strongly recommended that students obtain a grade of at least "C" before registering for the next course in a sequence. With special permission a student can repeat a course in which a "D" grade is obtained. Sequences offered where this guideline is applicable are Mat 111-112, Mat 121-122, Mat 111-112-225, Mat 115-225, Mat 111-112-211-212-213, Mat 115-211-212-213.

100 Foundations of Algebra (0)

Designed primarily for students not prepared for Mathematics 111 who need additional manipulative skills, particularly in algebra. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

101-102 College Mathematics for the General Student (3-3)

A terminal sequence designed for the general student and not intended as preparation for further mathematics courses. Cannot be substituted for Mathematics 111-112, 115, or 121-122. Algebraic and trigonometric functions with emphasis on fundamentals and applications rather than on manipulative skills, and an appreciation of other mathematical concepts, such as calculus, computers, geometry, probability, and statistics. Three hours each week.

111-112 Precalculus Mathematics (3-3)

Intended as a preparatory course for further mathematics, particularly the calculus. Fundamental operations, real number and order axioms, factoring, exponents, radicals, solutions of equations and systems of equations, circular functions, trigonometric relations, triangle solutions, variation, logarithms, functions and their inverses. Three hours each week.

115 Elementary Mathematical Analysis (3)

Prerequisite: Strong high school background including at least two years of algebra, one year of geometry, and a half-year of trigonometry. Designed for students with sufficient manipulative skill for calculus but lacking theoretical experience. Real and complex number systems, elementary set theory, functions and their inverses, mathematical induction, exponential and logarithmic functions, polynomial and rational functions, circular (trigonometric) functions and inverses. Three hours each week.

121-122 Finite Mathematics and Analysis (3-3)

Recommended for students concentrating in business and the social sciences. Sets, the real number system, fundamental operations, and inequalities, systems of equations and inequalities, matrices and determinants, logarithms, functions and graphs including straight lines and the conics, average and instantaneous rates of change, rules of differentiation with applications including maxima and minima and related rates, integrals of algebraic functions, area between two curves. Three hours each week.

211-212-213 The Calculus with Analytic Geometry (4-4-4)

Prerequisite: Mathematics 112 or 115. Functions and limits; differentiation with applications including maxima and minima, related rates, differentials and approximations; theory of integration with applications, equations of curves including the conic sections; transcendental functions, polar coordinates and parametric equations; infinite sequences and series; solid analytic geometry, partial derivatives; multiple integrals. Three hours lecture and two hours laboratory each week.

225 A Short Course in Calculus (3)
Prerequisite: Mathematics 112, 115 or 122. The differential and integral calculus with applications related to problems in the social and natural sciences. Little knowledge of trigonometry is required. Three hours each week.

228 Mathematical Modeling with Applications to Environmental Problems (3)
Prerequisites: MAT 112, 115, or 122, CSC 111, any statistics course. An introductory treatment of mathematical and computer modeling techniques which have application to environmental problems of an ecological, biological, social, economic, political and behavioral nature. Models to be examined will be both deterministic and stochastic and will include graph and network models, Markov processes, linear programming, Monte Carlo techniques, simulation, and game theoretic models. Group work will be especially encouraged.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Mathematics for Elementary Teachers (3)
Prerequisite: Mathematics 101. Open only to students concentrating in elementary education and designed primarily for students specializing in intermediate education. Modern approaches to and principles of mathematics. Three hours each week.

315 Differential Equations (3)
Prerequisite: Mathematics 213. First order equations with variables separable, exact equations, Euler's method of approximate solution, linear equations of first order, applications, linear equations of higher order with constant coefficients, solutions by repeated linear first order equations, variation of parameters, undetermined scaling variables, applications to networks and dynamical systems, introduction to series-solutions. Three hours each week.

316 Introduction to Vector Analysis (3)
Prerequisite: Mathematics 213. Addition of vectors and operations with scalars and vectors; scalar, vector and triple products; vector and scalar derivatives; line, surface and volume integrals; theorems of Gauss, Green and Stokes. Three hours each week.

317 Intermediate Analysis (3)
Prerequisite: Consent of instructor. Sets and mappings; countable, connected, open and closed sets; sequences and convergence; continuity; metric spaces. Precision in statements of definitions, axioms and theorems, and rigor in proofs are emphasized. Three hours each week.

325 (Computer Science 325) Numerical Algorithms (3)
Prerequisite: Computer Science 111, Mathematics 212. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

331 (Computer Science 331) Discrete Structures (3)
Prerequisite: Computer Science 111. Review of set algebra including map-

pings and relations. Algebraic structures including semigroups and groups. Elements of the theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science. Three hours each week.

335 Linear Algebra and Matrices (3)
Corequisite: Mathematics 213 or consent of instructor. Systems of linear equations, vector spaces, algebra of matrices and linear transformations, determinants, applications. Three hours each week.

336 Modern Algebra (3)
Prerequisite: Mathematics 335 or consent of instructor. Equivalence relations; groups, subgroups, normal subgroups, quotient groups; rings, subrings, ideals, quotient rings; rings of integers, fields of rational, real and complex numbers, polynomial rings. Three hours each week.

345 Modern College Geometry (3)
Prerequisite: Mathematics 212 or consent of instructor. Use of elementary methods in advanced study of the triangle and circle, special emphasis on solving original examples, comparison of Euclidean and non-Euclidean and projective geometries. Three hours each week.

346 Historical Development of Mathematics (3)
Corequisite: Mathematics 212 or consent of instructor. Development of mathematics from earliest systems to present century. Personalities involved, with the contributions of each. A problem-study approach to give the student some training in research. Three hours each week.

365 (Statistics 365) Probability Theory and Its Applications (3)
Prerequisite: Statistics 361. Fundamental concepts of probability theory including probability spaces, conditional probability, independence, central limit theorem, law of large numbers; formulation, analysis, and interpretation of probabilistic models in the natural, life, social, and managerial sciences, such as random walks, population models, queues, diffusion and learning models. Three hours each week.

411-412 Advanced Calculus (3-3)
Prerequisite: Mathematics 317. Advanced study of convergence, continuity, differentiation, and integration in R and R^n infinite series. Three hours each week.

415 Introduction to Complex Variables (3)
Prerequisite: Mathematics 411. Complex numbers, complex plane arguments and roots, conjugate coordinates, some definitions, the Cauchy-Riemann equations, Riemann surfaces, integration of analytic functions, Taylor series, Laurent series, the residue theorem. Three hours each week.

418 Topics in Analysis (3)
Prerequisite: Consent of instructor. An intensive study of a topic from applied or modern analysis, such as calculus of variations, partial differential equations, integral transforms, Fourier series, integral equations, special functions, tensor analysis, advanced ordinary differential equations, functional analysis, Lebesque integration, or generalized functions. May be repeated with consent of instructor. Three hours each week.

425 (Computer Science 425) Numerical Analysis (3)
Prerequisite: Mathematics 315, Computer Science 325. A thorough treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value

problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers. Three hours each week.

428 Topics in Applied Mathematics (3)
Prerequisite: Mathematics 315 or consent of instructor. Mathematical models of physical, biological, social, and communication phenomena are formulated, analyzed and interpreted. All interested students and faculty are invited to participate in the choice of problems and methods, and in the conduct of the course. Three hours each week.

435 Theory of Numbers (3)
Prerequisite: Mathematics 336. Divisibility, Euclidean algorithm, congruences, residue classes, Euler's functions, primitive roots, Chinese remainder theorem, quadratic residues, continued fractions, Gaussian integers. Three hours each week.

455 Introduction to Topology (3)
Prerequisite: Mathematics 336 or 317, or consent of instructor. Metric spaces, complete metric spaces, topological spaces, bases and subbases of a topology, separation axioms, compact and connected spaces, product topology. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing, consent of the department chairman, a "B" or better average on all mathematics courses taken.

495 Seminar in Mathematics (1)
Discussion of selected topics and problems. One hour each week.

499 Honors Work in Mathematics (2-3)
Prerequisite: Eligibility for honors program. Individual study for honors students.

STATISTICS

265 Introduction to Statistics (3)
Prerequisite: Mathematics 101, 111, 115 or 121. Collection, organization, analysis, and interpretation of numerical data obtained from various fields of study. Hypothesis testing, analysis of variance, correlation and regression. Three hours each week.

361 Introduction to Probability and Applied Statistics (3)
Prerequisite: Mathematics 211 or 225. Basic concepts of probability and statistics with an emphasis on applications. Elementary probability models, functions of random variables, distributions, sampling, data description, hypothesis testing, confidence intervals, tests of significance, goodness of fit, regression correlation, least square curve fitting, one-way analysis of variance. Three hours each week.

365 (Mathematics 365) Probability Theory and Its Applications (3)
Prerequisite: Statistics 361. Fundamental concepts of probability theory including probability spaces, conditional probability, independence, central limit theorem, law of large numbers; formulation, analysis, and interpretation of probabilistic models in the natural, life, social, and managerial sciences, such as random walks, population models, queues, diffusion and learning models. Three hours each week.

366 Mathematical Statistics (3)
Prerequisite: Statistics 361. Justification of elementary statistical procedures, together with an introduction to more advanced methods, such as experimental design, analysis of variance, regression, general linear and curvilinear models, partial correlation, and multiple regression. Three hours each week.

MEDICAL TECHNOLOGY

(See Biology)

MODERN LANGUAGES

Dr. Beeler, *chairman.* Mrs. Bellamy, Mrs. Cheek, Mr. Lowe, Dr. Mount, Mr. Perez, Dr. W. Randall, Dr. Sparks, Mr. Stites.

A student who offers two high school units in French, German or Spanish, and who wishes to continue the study of the same language, will normally begin at the intermediate level. However, a student whose language placement test scores and high school language grades are not satisfactory will be placed in and granted credit for the elementary level. A student who offers three or more high school units in French, German or Spanish, and whose placement test scores are sufficiently high, may gain admission to the 300 level courses in the language.

MODERN LANGUAGE

305 General Linguistics (3)
A descriptive study of the languages of the world, their history and development, with some attention to comparative grammar and phonology. Three hours each week.

306 Meaning and Language Change (3)
Development of word meanings from primitive roots to modern usage; changes in word meanings and forms due to both psychological and physiological factors; culture as "the silent language"; modern semantics, considering such phenomena as loaded words; euphemisms, and ameliorative and pejorative change in meanings; language as a vehicle for advertising and propaganda. Three hours each week.

ARABIC

101-102 Elements of Written Arabic (3-3)
Primary emphasis on literary Arabic, with attention given to spoken colloquials of Egypt, Syria, Palestine, and Iraq as modern developments of classical Arabic. The oral approach is not used; rather the aim is to enable the student to read and to write the modern and classical language. Three hours each week.

201-202 Intermediate Arabic (3-3)
Continuing study of more advanced grammar. Readings from the Qur'an, philosophical texts, modern newspapers, and contemporary literature.

Emphasis on writing Arabic; personal and business correspondence and original prose. Some attention to Arabic poetry of the classical period. Three hours each week.

FRENCH

101-102 Elementary French (3-3)
Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken French; reading, writing, and basic conversation. Three hours each week.

105 French for Tourists (3)
General interest course, but designed specifically for those planning to travel in a French-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week.

201-202 Intermediate French (3-3)
Prerequisite: French 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanations of grammatical points when necessary. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Conversation and Composition (3)
Prerequisite: French 202 or equivalent. Intensive training in spoken and written French. Three hours each week.

306 Advanced Grammar (3)
Prerequisite: French 202 or equivalent. Comparative grammar and translation; required of those preparing to teach at the high school level. Three hours each week.

307 Phonetics (3)
Prerequisite: French 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those preparing to teach at the high school level. Three hours each week.

311,312 French Civilization (3,3)
Prerequisite: French 202. Geographical, historical, and cultural aspects of France. 311: From prehistoric times to the French Revolution, 312: From the French Revolution to the present. Three hours each week.

321, 322 Survey of French Literature (3,3)
Prerequisite: French 202. Extensive readings covering the main currents of French literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. Three hours each week.

336 Explication De Texte (3)
Prerequisite: French 305 or equivalent. Training in French textual criticism; oral and written reports. Three hours each week.

405 Advanced Conversation and Composition (3)
Prerequisite: French 305 or equivalent. Emphasis on oral French, essay writing and translation. Recommended for students preparing for teaching. Three hours each week.

425 French Literature of the Sixteenth Century (3)
Prerequisite: French 322 or equivalent. Major writers of the Renaissance: Rabelais, Ronsard, Du Bellay, Montaigne, and others; oral and written reports. Three hours each week.

426 French Literature of the Eighteenth Century (3)
Prerequisite: French 322 or equivalent. Major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau, and others; oral and written reports. Three hours each week.

430 The French Novel of the Twentieth Century (3)
Prerequisite: French 322. Readings, discussion and analysis of representative works of Proust, Gide, Malraux, Sartre, Camus, and others; oral and written reports. Three hours each week.

435 The Nineteenth Century French Novel (3)
Prerequisite: French 322. Readings, discussion and analysis of major novels; romanticism, realism, and naturalism. Three hours each week.

436 French Classicism (3)
Prerequisite: French 322. Readings, discussion and analysis of representative works with emphasis on dramatic literature of the 17th century: Corneille, Racine, and Molière. Three hours each week.

437 French Lyric Poetry from Villon to Baudelaire (3)
Prerequisite: French 322 or equivalent. Major lyric forms from the Middle Ages to the 19th century; oral and written reports. Three hours each week.

438 Masterpieces of French Drama (3)
Prerequisite: French 322 or equivalent. The theatre in France from the Renaissance to modern times. Representative texts; oral and written reports. Three hours each week.

439 Masterpieces of French Prose Fiction (3)
Prerequisite: French 322 or equivalent. Representative works of imaginative French prose from the 17th century to the present; oral and written reports. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in French (2-3)
Prerequisite: Senior standing and eligibility for honors program. Independent study for honors students.

GERMAN

101-102 Elementary German (3-3)
Emphasis on achievement of an active command of the language. Aural-oral practice, intensive study of the basic patterns of spoken German; reading, writing and basic conversation. Three hours each week.

201-202 Intermediate German (3-3)
Prerequisite: German 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including history, literature, religion, and the sciences. Composition and conversation to enable the student to apply and expand his knowledge of the language. Individual projects relating to the student's major field of interest. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Conversation and Composition (3)
Prerequisite: German 202 or consent of the instructor. Intensive training in spoken and written German. Three hours each week.

321-322 Survey of German Literature (3-3)
Prerequisite: German 202 or consent of instructor. Extensive readings covering the main trends of German literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. 321: Literature through Goethe. 322: Literature beginning with the *Romantiker*. Three hours each week.

350 Masterpieces of German Literature in English Translation (3)
Reading, discussion, and analysis of representative works by major German authors: Lessing, Goethe, Schiller, Kleist, Hebbel, Hauptmann, Mann, Hesse, and others. Knowledge of German not required. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

PORTUGUESE

101-102 Elementary Portuguese (3-3)
Emphasis on the acquisition of an active and useful command of the language. Intensive aural-oral practice with the study of grammatical structures along with the pursuit of a reading and writing ability. Discussions to introduce the students to the culture of the Portuguese-speaking areas of the world, primarily Brazil and Portugal. Three hours each week.

201-202 Intermediate Portuguese (3-3)
Prerequisite: Portuguese 102 or equivalent. 201: A thorough and practical review and summarization of modern Portuguese. Introduction to readings

of literary and intellectural value, as well as some materials of social and political interest. Continuation of the aural-oral practice in class. 202: Emphasis on reading for the student in subjects of various types. Materials drawn from fields such as history, politics, sociology, geography, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief grammatical explanations when necessary. Three hours each week.

SPANISH

101-102 Elementary Spanish (3-3)
Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken Spanish; reading, writing and basic conversation. Three hours each week.

105 Spanish for Tourists (3)
General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week.

201-202 Intermediate Spanish (3-3)
Prerequisite: Spanish 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanation of grammatical points when necessary. Three hours each week.

205 Business Spanish (3)
Prerequisite: Spanish 102 or consent of the instructor. Designed for students who need familiarization with the terminology necessary for the fields of economics, business, accounting, natural sciences and others. Business correspondence in Spanish and the currency systems of the Spanish speaking countries are included. Three hours each week.

209,210 Masterpieces of Spanish Literature in Translation (3,3)
209: Study of the great works of Spanish literature of the Middle Ages and the Golden Age, including the *Poem of My Cid,* the *Book of Good* Love, the 'Celestina, *Lazarillo de Tormes, El burlador de Sevilla,* and *Don Quixote*. Reading and class discussion in English. 210: Representative works of the 19th and 20th centuries in Spain, including selections from Galdós, the Generation of '98, García Lorca, Camilo José Cela, and Ramón Sender. Reading and class discussion in English. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Conversation and Composition (3)
Prerequisite: Spanish 202 or equivalent. Intensive training in spoken and written Spanish. Three hours each week.

306 Advanced Grammar (3)
Prerequisite: Spanish 202 or equivalent. Grammatical forms and usage; required of those who plan to teach at the high school level. Three hours each week.

307 Phonetics (3)
Prerequisite: Spanish 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those who plan to teach at the high school level. Three hours each week.

311,312 Spanish and Spanish-American Civilization (3,3)
Prerequisite: Spanish 202 or equivalent. Geographical, historical and cultural aspects of Spain (311) and Spanish America (312). Three hours each week.

321,322 Survey of Spanish Literature (3,3)
Prerequisite: Spanish 202 or equivalent. Extensive readings covering the main currents of Spanish literature; emphasis in classroom discussions on textual analysis and criticism; oral and written reports. Three hours each week.

405 Advanced Conversation and Composition (3)
Prerequisite: Spanish 202 or equivalent. Emphasis on oral Spanish, essay writing and translation. Recommended for students preparing for teaching. Three hours each week.

421,422 Spanish-American Literature (3,3)
Prerequisite: Spanish 322 or equivalent. 421: Representative works from colonial times to the Modernista movement. 422: Representative works from the Modernista movement to the present with emphasis on the novel and poetry. Three hours each week.

425 Twentieth Century Spanish Novel (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of representative novels from the Generation of 1898 to the present. Three hours each week.

426 Twentieth Century Spanish Drama and Poetry (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of representative drama and poetry from the Generation of 1898 to the present. Three hours each week.

430 Spanish Literature Before the Golden Age (3)
Prerequisite: Spanish 322 or equivalent. Epic and lyric poetry, the exemplar collections, *La Celestina,* the novels of chivalry, the sentimental novel, and the Moorish novel. Three hours each week.

431,432 Golden Age Drama (3,3)
Prerequisite: Spanish 322 or equivalent. 431: Lope de Vega and his contemporaries. 432: Calderón and his contemporaries. Three hours each week.

433,434 Nineteenth Century Spanish Novel, Drama and Poetry (3,3)
Prerequisite: Spanish 322 or equivalent. 433: Costumbrismo, regionalism,

and realism with emphasis on the novel. 434: Spanish drama from Moratin's neoclassic comedies to the Generation of 1898 with emphasis on the romantic and realistic theatre. Reading from representative authors of romantic poetry. Three hours each week.

435 Golden Age Prose (3)
Prerequisite: Spanish 322 or equivalent. The novel and short story with emphasis on Cervantes. Three hours each week.

436 The Generation of 1898 (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of representative works; oral and written reports. Three hours each week.

438 Eighteenth Century Spanish Literature (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of major writers of the 18th century. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Spanish (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

MUSIC

Dr. Deas, *chairman.* Mr. W. Adcock, Dr. Burkholder, Mrs. Ping, Mr. Steen, Mr. Thornton, Mr. Wiley.

PIANO PROFICIENCY EXAMINATION

1. Prepare from memory one piece (as found in Piano Methods for Adults by Bastien-Bastien) on the level of:
   Minuet in F major—Mozart
   Minuet in G—Bach
   Sonatina in C major—Clementi
   Sonatina in C, op. 157, No. 1—Spindler
2. Sight Reading: Material appropriate to the level as described above.
3. Arpeggios: All major and minor arpeggios hands together, 2 octaves, ascending & descending.
4. Triads: To be played hands together, all major and minor triads, root position, first inversion, second inversion, ascending and descending—basic cadential progressions, including secondary dominants and modulation.
5. Scales: All major and minor scales, hands together, 2 octaves ascending & descending.
6. Harmony: Students will be required to harmonize at sight simple folk songs with appropriate accompaniment.

082 Accompanying (1)
Prerequisite: Consent of instructor. Accumulative credit limited to eight semester hours. Student will be assigned an instrumentalist or vocalist with whom to work. One hourly class meeting per week, plus accompanying for lesson of soloist and adequate rehearsal time with soloist per week to prepare for the lesson of the soloist.

083 UNC-W Chamber Singers (1)
Select group drawn from the concert choir (086) by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsals per week.

084 Jazz Ensemble (1)
Prerequisite: Permission of instructor. The study and performance of modern jazz techniques and interpretation of popular styles, including instruction in improvisation. Members will be chosen from the Wind Ensemble (MUS 085). Two hourly rehearsals per week.

085 Wind Ensemble (1)
Open to any student who has had previous training or experience in instrumental music and who has the consent of the director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

086 Concert Choir (1)
Prerequisite: Auditions by director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

087 Orchestra (1)
Tuesdays 7:30-9:30 p.m. Auditions by director. Study and performance of the orchestral literature performed with the UNC-W/Community Orchestra which meets for a minimum of two hours per week and gives an average of three performances per year.

101-102 Theory I (3-3)
101: Concepts: Time, gesture, pitch. Fundamentals of notation. Functional tonality. Basis of tonal counterpoint: Two, three, and four voices. Analysis of Bach chorales, melodic structures. 102: Concepts: Continued. Application of basic concepts in analysis of 18th century music literature. Three lecture and two laboratory hours each week.

105 Rudiments of Music (3)
A general survey of the basic materials of music, including the study of musical rudiments, listening experiences, sight singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for Music Theory 101, and for students who wish to increase their knowledge of music. Three hours each week.

115 Survey of Music Literature (3)
Designed to increase the student's knowledge and appreciation of music; technical knowledge of music not required. Three hours each week.

116 History of Jazz (3)
A survey of the evolution of this American art form from its African roots and European influences to the present. Technical knowledge of music not required. Three hours each week.

117 American Music (3)
A survey of American composers, musicians, and music making (classical, folk and religious) from the earliest days of European settlement to the present. Technical knowledge of music helpful, but not required. Three hours each week.

121-122 Class Strings (1-1)
Prerequisite: Consent of instructor. Class instruction in violin, viola, cello or string bass. Prior experience is not required. Two laboratory hours each week.

125 Percussion (1 or 2)
Prerequisite: Consent of instructor. Private instruction in percussion instruments. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

133 Opera Workshop (3)
Prerequisite: Music 145 or consent of instructor. The musical preparation and staging of operatic scenes through dramatic interpretation, body movement, and improvisation. Three hours each week.

134 Choral Workshop (3)
Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening. Three hours each week.

135 Trumpet (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the trumpet. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

136 French Horn (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the French horn. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

137 Trombone (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the trombone. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

138 Tuba (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the tuba. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

139 Baritone (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the baritone. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

141 Class Voice (1)
Prerequisite: Consent of instructor. Singing techniques learned through vocal exercises and study of song literature. Two hours each week. Accumulative credit.

145 Voice (1 or 2)
Prerequisite: Consent of instructor. Fundamentals of vocal techniques and vocal literature. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

151-152 Class Piano I (1-1)
Prerequisite: Consent of instructor. Recommended for all students enrolled in Music Theory 101-102 and music majors who have not passed the piano proficiency examination. Laboratory hours as required.

155 Piano (1 or 2)
Prerequisite: Consent of instructor. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

156 Harpsichord (1 or 2)
Prerequisite: Consent of instructor. Private instruction in harpsichord. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

165 Flute and Piccolo (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the flute and piccolo. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

166 Oboe (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the oboe. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

167 Clarinet (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the clarinet. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

168 Bassoon (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the bassoon. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

169 Saxophone (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the saxophone. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

175-275-375-475 Organ (1 or 2)
Prerequisite: Consent of instructor. Private instruction in organ. Music 175 is prerequisite to 275, etc. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

185 Strings (1 or 2)
Prerequisite: Consent of instructor. Private instruction in violin, viola, cello or string bass. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

186 Viola (1 or 2)
Prerequisite: Consent of instructor. Private instruction in the viola. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

187 Cello (1 or 2)
Prerequisite: Consent of instructor. Private instruction in the cello. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

188 String Bass (1 or 2)
Prerequisite: Consent of instructor. Private instruction in the string bass. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

191-192 Class Guitar (1-1)
Prerequisite: Consent of instructor. Class instruction in classical guitar. Prior experience is not required. Two laboratory hours each week.

195 Classical Guitar (1 or 2)
Prerequisite: Consent of instructor. Private instruction in classical guitar. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

201-202 Theory II (303)
Prerequisite: Music 101-102. 201-202: Basic musicianship skills. 201: Music of the Medieval and Renaissance periods. 202: Music of the Baroque period. Three hours each week.

203 Composition (1-3)
Prerequisite: Consent of instructor. A beginning study of the theory and practice of compositional techniques through direct application in original compositions. Course operated in connection with electronic music studio. Accumulative credit. Laboratory hours as required.

211-212-213 History of Music (2-2-2)
211: Stylistic development of music and related social and historical events of the Medieval and Renaissance eras. 212: Stylistic development of music and related social and historical events of the 17th and early 18th centuries. 213: Stylistic development of music and related social and historical events of the later 18th and 19th centuries.

221 Percussion Methods (1)
Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

231 Brass Methods (1)
Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

251-252 Class Piano II (1-1)
Prerequisite: Music 152 or consent of instructor based on placement. Recommended for all music majors who have not passed the piano proficiency examination. Two laboratory hours each week.

261 Woodwind Methods (1)
Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

301-302 Theory III (3-3)
Prerequisite: Music 202. 301-302: Basic musicianship skills. 301: Music of the Romantic period. 302: Music of the 20th century. Three hours each week.

303 Electronic Music (3)
Prerequisite: Any one of the following courses: Music 101, 105, 115, or 203 and consent of instructor. Electronic music studio techniques utilizing the facilities at the UNC-W Electronic Music Studio, including the Synthesizer AKS and ARP 2600 synthesizers. History of electronic music, analytical techniques. After the initial semester, concentration on compositional techniques through direct application in original compositions. Seminar plus laboratory hours as required. Accumulative credit. Two lecture and one laboratory hour each week.

306 Orchestration (2)
Prerequisite: Music 181-182, 221 and 231 and 261, or consent of instructor. Techniques of transcribing, arranging, and scoring music for various instruments and instrumental combinations. Designed for students concentrating in music. Two hours each week.

325 Music Education for Elementary Teachers (3)
Approach to the teaching of music at the elementary level, including the use of piano laboratory. Three hours each week.

326 Methods in Music Education (2)
Corequisite: Education 459 and 460. Open only to students concentrating in music. Approach to the teaching of music at the elementary and junior and senior high levels. Two hours each week.

337 Vocal Methods (1)
Basic procedures of teaching voice with emphasis on the junior and senior high school levels. Materials for solo voice studied and performed. Two laboratory hours each week.

403 Advanced Composition (1-3)
Prerequisite: Music 203 and consent of instructor. Music majors only. Advanced study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

405 Choral Conducting (2)
Prerequisite: Music 306 or consent of instructor. Techniques of conducting choral ensembles with emphasis on periodic style and literature. Two lecture and one laboratory hour each week.

406 Instrumental Conducting (2)
Prerequisite: Music 306 or consent of instructor. Techniques of conducting applied to instrumental ensembles with emphasis on orchestral and band score reading, periodic style, literature, and rehearsal techniques. Two lecture and one laboratory hour each week.

490 Thesis (1)
A research thesis in a subject to be determined in consultation with the music faculty.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Recital (1)
Consent of the music faculty.

499 Honors Work in Music (2-3)
Prerequisite: Eligibility for honors program and junior or senior standing. Independent study for honors students.

NURSING

Miss Dixon, *director*. Mrs. Barfield, Mrs. Lowe, Mrs. Lewis, Ms. Thomas, Mrs. White, Miss Whitfield.

110 Fundamentals of Nursing (6)
Corequisite: Biology 215. Introduction to the nursing profession and to the

nursing process. Concept of adaptation explored with an overview of the many factors influencing health. Provision of learning experiences to utilize nursing skills to care for individuals who need help in meeting basic needs. Four lecture and six laboratory hours each week.

120 Nursing Intervention I (7)
Prerequisite: Nursing 110 and Biology 215. Focus is on planning and implementing nursing intervention for individuals presenting a variety of physical and psychological needs. The conceptual framework of stress-adaptation emphasizes the interrelationship of these needs. Four lecture and nine laboratory hours each week.

135 Nursing Intervention II (4)
Prerequisite: Nursing 120 and Biology 225. Provides a learning experience in psychiatric/mental health nursing. Emphasis is on the use of self as a therapeutic tool in nursing intervention. Nine lecture and nine laboratory hours each week.

220 Nursing Intervention III (9)
Prerequisite: Nursing 120. Focus is on planning and implementing nursing intervention for individuals presenting complex physical and psychological needs. Five lecture and twelve laboratory hours each week.

225 Nursing Intervention IV (9)
Prerequisite: Nursing 220. Focus is on planning and implementing nursing intervention to meet the needs of patients in the maternity, child, family cycle. Emphasis is on the family unit in the community setting as well as during hospitalization. Five lecture and twelve laboratory hours each week.

250 Nursing Seminar (3)
Prerequisite: Nursing 220. Provides an opportunity for an exploration of nursing in today's society with a focus on current trends and issues. Two lecture and three laboratory hours each week.

PHILOSOPHY AND RELIGION

Dr. Megivern, *chairman*. Mr. Duckett, Dr. Hall, Dr. McGowan, Dr. Robbins, Dr. Shinn.

PHILOSOPHY

101 Invitation to Philosophical Thinking (3)
An invitation to participating students to explore key aspects of human existence in an effort to clarify its foundations. Three hours each week.

110 Formal Logic (3)
Introduction to the principles of formal logic including the rules of deduction, the categorical syllogism, and a reading of Aristotle's *Categories* and *On Interpretation*. Three hours each week.

201-202 History of Western Thought (3-3)
201: Suvey of classical philosophy, Greek and Roman sources of culture. 202: Survey of development of empiricism, Italian Renaissance to 18th century. Three hours each week.

203 Nineteenth Century Philosophy (3)
Survey of major philosophical movements of the century: Romanticism as reaction to Kant; Hegel; Schopenhauer; Utilitarianism; Marx; Nietzsche. New views of science: Wallace, Darwin, Loeb, Driesch, Mach, Pearson. Relationship of 19th to 20th century thought. Three hours each week.

205 American Philosophy (3)
An introduction to American philosophical thought, beginning with the origins of Pragmatism (C.S. Peirce and W. James) and proceeding through an examination of the thought of Royce, Santayana, Dewey and Quine.

211 Toward a Contemporary Philosophy of Man (3)
An effort to clarify the meanings of man as he presents himself in our contemporary world; oriented toward a theory of education and of psychology. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Medieval Philosophy (3)
The leading thinkers and issues from the 9th century rise of dialectics to the 14th century decline into Nominalism. Special attention to the 13th century climax in the works of Bonaventure, Albertus Magnus, and Thomas Aquinas. Three hours each week.

308 Plato (3)
Study of the Dialogues of Plato: Analysis of texts; contemporary interpretations. Three hours each week.

309 Aristotle (3)
An examination of Aristotle's philosophy through selected texts, supplemented with contemporary criticisms. Aristotle's criticisms of Plato; problems of interpretation. Three hours each week.

310 (Political Science 310) Legal Philosophy and Jurisprudence (3)
Prerequisite: Junior standing and/or the consent of instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include: Natural law; historical, analytical and sociological jurisprudence; idealism, utilitarianism and legal realism; equity, justice, precedent, custom and law, and the relation of law and morality. Three hours each week.

313 Social and Political Philosophy (3)
An exploration of philosophical issues and concepts central to an understanding of social and political life, e.g., function and cause, justice, liberty, equality, societal facts and laws, utopias, reason and political argument, political obligation and the public interest.

315 Ethics (3)
Examination of ethical theories, philosophical and religious; selection of particular issues to illustrate various styles, e.g., war, censorship, abortion, racism. Three hours each week.

316 Aesthetics (3)
Primary source investigation of the major contributors to Western aesthetic theory: Plato, Aristotle, Plotinus, Burke, Lessing, Kant, Hegel, Schopenhauer, Veron, Guyau, Tolstoy, Dessoir, Santayana, Croce, Cassirer, Dewey, and Camus. Three hours each week.

317 Metaphysics and Epistemology (3)
Prerequisite: Philosophy and Religion 201 or 202. Selected readings from classical and contemporary sources on the nature of reality; the theories of knowledge resulting from Western man's reflection upon experience; contributions, e.g., of Plato & Aristotle, Descartes & Kant, Freud, Heidegger and Wittgenstein. Three hours each week.

318 Symbolic Logic (3)
Fundamentals of an axiomatic logical system, including both the propositional calculus and the predicate calculus. Three hours each week.

345 Philosophy of Science (3)
An interdisciplinary seminar with an emphasis upon student research in the history and practice of the philosophy of science. Collaboration of the biology, physics, and philosophy departments. Three hours each week.

401 The Philosophy of Immanuel Kant (3)
Prerequisite: P & R 202. An examination of the thought and influence of Kant in his three great critiques, especially the first, *The Critique of Pure Reason*, as well as in his *Groundwork of the Metaphysics of Morals*.

405 Contemporary Philosophical Thought (3)
Prerequisite: Philosophy and Religion 201 and 202. Primary source study of various philosophers of the 20th century, representing the major schools or movements. Three hours each week.

415 Existentialism (3)
Prerequisite: Philosophy and Religion 201 and 202. Basic themes in the thought of the leading existentialists and phenomenologists, including Kierkegaard, Nietzsche, Husserl, Jaspers, Heidegger, Sartre, Marcel, Merleau-Ponty, and Ricoeur. Three hours each week.

421-422 Seminar (3-3)
Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary sources of student-selected philosophic and/or religious problems. Three hours each week.

432 Philosophy of Religion (3)
Prerequisite: Philosophy and Religion 201 and 202. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Philosophy (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

RELIGION

141 Greek Grammar (3)
Basic study of the Greek language with special attention to that of the New Testament. Three hours each week.

231 Primitive and Classical Religions (3)
A survey of primitive religion as revealed both in archaeological research and remaining primitive customs; examination of classical faiths of Egypt, Mesopotamia and ancient Europe. Three hours each week.

232 Major World Religions (3)
A survey of Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity, and Islam; historical aspects, basic insights, texts, relevancy to contemporary man. Three hours each week.

235 Introduction to the Old Testament (3)
Historical study of the Hebrew, Canaanite, Sumerian, Babylonian, and Egyptian cultures, based upon primary literary and archaeological sources. Three hours each week.

236 Introduction to the New Testament (3)
Historical survey of the canonical Christian literature; illustration of contemporary methods of text-criticism, literary-criticism, form-criticism, and redaction-criticism; focus on results of modern scholarship in appreciating the Gospels and their function in the early Christian community. Three hours each week.

238 Early Christian Writers (3)
Survey of the basic works of the major Greek and Latin Christian Fathers from the late 1st century to the early 7th century. Special focus on the formative role of the first six "ecumenical" Councils, from Nicaea in 325 to Constantinople III in 680. Three hours each week.

242 Religion in America (3)
A survey of religious thought from colonial times to the present; representative Protestant, Catholic, and Jewish thinkers; the phenomenon of "civil religion", church involvement in social and political issues.

331 Luke-Acts (3)
Prerequisite: Philosophy and Religion 236. Analysis and interpretation of the two-volume work attributed to Luke, i.e., the third Gospel and the Book of the Acts of the Apostles; comparison of the former with the other two Synoptic Gospels, and significance of the latter for the emerging Christian movement. Three hours each week.

333 The Pauline Corpus (3)
Prerequisite: Philosophy and Religion 236. Analysis and interpretation of the major New Testament Letters attributed to Paul; focus on I & II Thessalonians, Philippians, I & II Corinthians, Galatians, and Romans. Three hours each week.

335 The Johannine Literature (3)
Prerequisite: P&R analysis and interpretation of the five New Testament writings attributed to John; survey of 20th century work on the Fourth Gospel; especially C.H. Dodd, R. Bultmann, C.K. Barrett, and R. Brown; the three letters and their significance; relation of the Book of Revelation to the foregoing.

337 Apocalyptic Literature (3)
Prerequisite: Philosophy and Religion 235, 236, or permission of instructor. A study of Jewish and Christian apocalypses, stressing general characteristics of 'apocalypse', historical and linguistic backgrounds, critical problems, and exegetical study, using Daniel, Ezechiel, and Revelation as examples. Three hours each week.

338 The Prophets of Israel (3)
Prerequisite: Philosophy and Religion 235. Primary source investigation of the Old Testament Prophets and their political, religious, socio-economic and historical background. Three hours each week.

339 Psychology of Religion (3)
A history of the interaction of modern psychology with the Western religious tradition from William James to the present; Freud and Jung, Allport and Menninger, Tillich and May, Hiltner and Pruyser, on such areas as faith and doubt, prayer and prejudice, symbol and guilt, authority and integration of personality. Three hours each week.

351 Reformation and Counter-Reformation (3)
An examination of the Reform movements in the Christian Church from the 12th to the 16th century; efforts of the Monastic and Mendicant Orders; Wycliffe, Henry of Langenstein, Gerson, Dietrich of Niem, John Major; Hus and Conciliarism; Erasmus, Luther, Zwingli, and Calvin; the Council of Trent and Ignatius Loyola. Three hours each week.

353 Church and State in Christian History (3)
A survey of the theoretical and practical problems encountered in the effort to find an appropriate relation of religion to politics; New Testament material, Constantine and Eusebius, Theodosius; Augustine and the "Holy Roman Empire"; the divine-right-of-kings and Machiavelli; Hobbes, Locke, Rousseau and the Social Contract; Jefferson and Franklin and the American experiment; 20th century role of the U.S. Supreme Court. Three hours each week.

421-422 Seminar (3-3)
Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary sources of student-selected philosophic and/or religious problems. Three hours each week.

432 Philosophy of Religion (3)
Prerequisite: Philosophy and Religion 201 and 202. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

PHYSICAL EDUCATION

Dr. Miller, *chairman*. Dr. E. Allen, Mrs. Batson, Mr. Brooks, Mr. Davis, Miss Donahue, Mr. Gibson, Mr. Honeycutt, Mr. James, Mr. Lane, Mrs. Lewis, Mr. Warner.

101 Foundations of Physical Education (1)
Study of immediate and long-term effects of physical activity and establishment of individualized programs for acquiring and maintaining physical fitness. One lecture and two hours of activity each week.

102 Physical Education Activity (1)
Prerequisite: Physical Education 101 or equivalent. Student may accumulate up to 7 hours credit in Physical Education 102, but is limited to one hour per semester. Three hours each week.

105 Personal Hygiene (3)
Major health problems of the day and how they relate to the individual. Three hours each week.

215 (Biology 215) Anatomy and Physiology (4)
Prerequisite: Credit in Biology or consent of instructor. Brief introduction to major biological principles as applied to study of human anatomy and physiology. Three lecture and three laboratory hours each week.

220 Sports Activities (1)
The following courses are designed to render the student skillful in and knowledgeable about specific sports activities. Exposure to resource materials and teaching techniques appropriate to each sports activity listed as follows: aquatics, archery, badminton, basketball, dance, field hockey, football, golf, gymnastics, soccer, softball, tennis, track and field, volleyball, and wrestling. Three hours each week.

235 Principles of Health and Physical Education (3)
Introduction to the objectives, history, philosophies, trends, and professionalism of health and physical education. Three hours each week.

236 Athletic Officiating I (2)
Rules, officiating techniques, and problems arising in officiating, with emphasis on football, basketball, and baseball. One lecture and two laboratory hours each week.

237 Athletic Officiating II (2)
Rules, officiating techniques, and problems arising in officiating, with emphasis on volleyball, women's basketball, tennis, and badminton. One lecture and two laboratory hours each week.

265 Introduction to Recreation and Parks (3)
The scope, development, structure, purposes, functions, interrelationships of public, commercial, private and voluntary agencies engaged in rendering recreation and park services. This course should be a prerequisite for all other courses in recreation collateral. Three hours each week.

266 Program Planning for Recreation and Parks (3)
Prerequisite: Physical Education 265. An introduction to programming for recreation and parks, including the majors areas of recreation, planning principles, objectives and evaluation. Program factors, such as scheduling, personnel, facilities, equipment, etc., will be considered. Three hours each week.

267 Practicum in Recreation (3)
Prerequisite: Physical Education 265. Supervised experience in recreation and/or park setting. Will include administrative, supervisory, program leadership training in a recreation setting. Recreation problems in low income areas will be examined along with leadership training in special activities and programs. Three hours each week.

268 Social Recreation Leadership (3)
Prerequisite: Physical Education 265. An introduction to methods and materials used in social recreation leadership in various settings. In addition to leadership in political subdivision settings, emphasis will be placed on social recreation leadership for special populations and for private and voluntary agencies.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Health Education (3)
The scope, development and procedures of health education as it relates to the student, health services and the healthful school environment. Emphasis upon the teacher's responsibility to the total school health program. Three hours each week.

306 Safety, First Aid and Athletic Injuries (3)
Fundamentals of administering first aid and treatment of athletic injuries. Three hours each week.

316 Applied Physiology of Exercise (3)
Prerequisite: Physical Education 215. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Two lectures and one laboratory session each week.

320 Methods of Teaching Motor Activity (3)
Emphasis on instructional methodology appropriate to teaching motor skills and sports activities, formulation of objectives, and lesson planning. Includes practicum in teaching. Three hours each week.

335 Readings in Physical Education (3)
A comprehensive review of literature in physical education and related areas. Three hours each week.

336 An Approach to Coaching (3)
The application of philosophical and psychological knowledge and principles to the administration and coaching of sports with special emphasis on research literature. Three hours each week.

355 Tests and Measurements in Physical Education (3)
Use and interpretation of elementary statistical techniques for evaluation and application of tests in physical education; review of current tests in motor ability, physical fitness, classification, sport skills, and knowledge. Three hours each week.

365 Administration of Recreation and Parks (3)
Prerequisite: Physical Education 265. Administrative practices related to recreation and parks services, including budget preparation; legal aspects of recreation and park services; fees and charges; public relations; recruiting, selecting and training personnel; personnel practices, etc. Three hours each week.

366 Water-Related Recreation and Park Facilities and Programs (3)
Prerequisite: Physical Education 265. Principles and procedures of developing recreation facilities for water-related activities, such as pools, marinas, lake facilities, etc. Water-related programs, such as scuba diving, swimming, skiing, etc. Three hours each week.

368 Introduction to Therapeutic Recreation and Special Populations (3)
Prerequisite: Physical Education 265 and 266. The recreation and park program for individuals and groups who are ill, handicapped, aged, or in other special groups conducted by tax-supported, voluntary, or private agencies found in the community, hospitals, penal institutions, or other special residences. Three hours each week.

385 Physical Education in the Elementary School (3)
Open only to students concentrating in elementary education or physical education. Emphasis on concepts, methods, materials, and activities basic to developing and conducting a program of physical education for elementary school children in a self-contained classroom. Three hours each week.

415 Adapted Physical Education (3)
Prerequisite: Physical Education 215 and junior or senior standing. Problems relating to the physiological and kinesiological needs of the individual with physical limitations. Emphasis on the selection of activities that will provide opportunities for optimum development of which he is capable. Two lecture and two laboratory hours each week.

416 Advanced Physiology of Exercise (3)
Prerequisite: Physical Education 316 and consent of instructor. An in-depth study of human physiological adaptation to exercise and training. Emphasis on circulatory hemodynamics, respiratory function, thermal regulation, and blood chemistry during work. Primarily a laboratory experience. Three hours each week.

420 Practicum in Teaching Physical Education (3)
Prerequisite: Physical Education 320. (PED 420 must be taken before Education 459 and 460). Individualized, supervised practicum in teaching. Experience complemented with weekly seminar on contemporary problems. Three hours each week.

421-422-423-424-425-426 Methods of Coaching (2)
Emphasis on strategy, fundamentals, techniques, training and related duties. Two hours each week.
421 Baseball.
422 Basketball.
423 Football.
424 Track and Field.
425 Soccer.
426 Volleyball.

435 Organization and Administration of Health and Physical Education (3)
Prerequisite: Junior or senior standing. Analysis of problems involved in planning, organizing, and directing health and physical education programs. Three hours each week.

436 Intramurals (3)
Prerequisite: Junior or senior standing. The position of intramural activities in the overall program of physical education. Analysis of problems involved in the administration and organization with emphasis on the practical approach in school systems. Three hours each week.

440 Selected Topics in Physical Education (3)
Survey course for public school teachers with emphasis on updating

traditional ideas and principles and introducing new ideas and problems in health and physical education. Three hours each week.

455 Advanced Tests and Measurements in Physical Education (3)
Prerequisite: Physical Education 355. Statistical techniques as applied to research in physical education; measurement and evaluation in areas of agility, balance, power, flexibility, kinesthetic perception and anthropometrics. Three hours each week.

465 Planning of Recreation and Park Areas and Facilities (3)
Prerequisite: Physical Education 365. Study of planning standards and techniques will be considered. Standards for master plans will also be included. Students will develop plans for a recreation area and/or park as part of this course. Three hours each week.

467 Outdoor Recreation (3)
Prerequisite: Physical Education 265. The scope, organization, and program activities using resources in large parks, forests, and primitive areas. Consideration will be given to private, local, state, and federal agencies concerned with outdoor recreation and these areas. Three hours each week.

468 Seminar in Recreation (3)
Prerequisite: Physical Education 365 or consent of instructor. Discussion of selected topics drawn from current literature. Discussions with various professionals from county, municipal, state, federal, and private recreation and park agencies.

469 Research Methods and Practices in Recreation and Parks (3)
Prerequisite: Physical Education 365. Research techniques employed to solve problems in the recreation and parks field. Research projects, workshops and clinics relative to specific problems on an independent and group basis will be undertaken.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Physical Education (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

PHYSICS

Dr. Clator, *chairman*. Dr. H. Hernandez, Mr. Nelson, Dr. Tiedeman.

101-102 Elementary College Physics (4-4)
Corequisite: Mathematics 111. General physics designed for students in pre-professional programs and the biological sciences and for freshmen planning to concentrate in the physical sciences. Mechanics, heat, sound, light, electricity and magnetism and introduction to modern physics. Three lecture and two laboratory hours each week.

105 Introductory Physics (4)
Terminal course designed to cover basic principles of physics. Three lecture and two laboratory hours each week.

106 (Environmental Studies 106) Environmental Physics (3)
A study of the environment and the interrelation of its physical systems.

Emphasis on energy sources, efficiency of their use and the effect on the environment. Three lecture hours each week.

107 Physics of Music (4)
Study of the scientific basis of music. Three lecture and two laboratory hours per week.

108 Meteorology (4)
Prerequisite: Mathematics 102 or 111. A study of the principles underlying atmospheric phenomena and applications to observational techniques. Three lecture and one laboratory hour each week.

201-202 General Physics (5-5)
Corequisite: Mathematics 211-212, respectively. 201: Mechanics, heat, wave motion and acoustics. 202: Electrostatics, magnetism, circuits, electrodynamics, optics, atoms, electrons, radio-activity and nuclear physics. Four lecture and two laboratory hours each week.

206-207 Problems in General Physics (2-2)
Prerequisite: Physics 101-102 and *corequisite:* Mathematics 211-212. Problems in general physics and their applications. Two problem sessions each week.

215-216 Electric Circuits (4-4)
Corequisite: Mathematics 211. Fundamental laws of electric circuits; transient and steady-state sinusoidal analysis of linear circuits by complex frequency; phasor and two-port networks. Three lecture and three laboratory hours each week.

225 Electronics (3)
Prerequisite: Consent of instructor. An introduction to electronics with emphasis on instrumentation and techniques used in scientific laboratories. Two lecture and one laboratory hour each week.

260 Introduction to Astronomy (3)
Corequisite: Mathematics 102. Descriptive course in principles, theories, and techniques of astronomy. Two lecture and two laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

305 Science for Elementary Teachers (3)
Open only to students concentrating in elementary education and to in-service teachers. Biological and physical science areas appropriate for inclusion in elementary schools. Three hours each week.

315-316 Electricity and Magnetism (3-3)
Prerequisite: Physics 202 and *corequisite:* Mathematics 315, 316. Electric and magnetic field theory; Poisson's and Laplace's equations; harmonic methods, special methods for solution of electrostatic problems; material media and boundary value problems; electromagnetic waves and radiation; electromagnetic laws of optics. Three hours each week.

321-322 Mechanics (3-3)
Prerequisite: Physics 202 and *corequisite:* Mathematics 315, 316. Elements of Newtonian mechanics, mechanics of continuous media, La Grange's equation, rotation of a rigid body. Three hours each week.

335-336 Introduction to Modern Physics (3-3)
Prerequisite: Physics 202. Survey of important developments in atomic and nuclear physics, including relativity, atomic spectroscopy, X-rays and radio-activity. Three hours each week.

370 Photography (2)
Prerequisite: Consent of department chairman. Techniques and procedures in the use of photographic materials and equipment.

400 Advanced Laboratory (1)
Prerequisite: Consent of instructor. Designed to acquaint students with the various laboratory techniques, error analysis and reduction of data by digital computer. One hour each week.

405 History of Physics (1)
Prerequisite: Physics 202 and Mathematics 315. Survey of the growth of physical beliefs and concepts from Copernicus to present. One hour each week.

406 Mathematical Physics (3)
Prerequisite; Physics 202 and Mathematics 315. Designed to provide mathematics necessary for advanced undergraduate and beginning graduate study in physical sciences and to develop a strong background for students continuing into mathematics of advanced theoretical physics. Mastery of calculus and willingness to build on this mathematical foundation are assumed. Three hours each week.

425 Quantum Mechanics (3)
Prerequisite: Physics 315. Basic postulates of quantum mechanics; solution of the wave equation, angular momentum, and the origin of electron spin. Three hours each week.

435 Nuclear Physics (3)
Prerequisite: Physics 335; *corequisite:* Mathematics 315. Introduction to properties of the nucleus; natural and artificial radioactivity; nuclear reactions and particle accelerators. Three hours each week.

445 Optics (3)
Prerequisite: Physics 202; *corequisite:* Mathematics 315. Physical and geometrical optics, Huygen's principle, electromagnetic theory of light. Three hours each week.

455 Thermo-Physics (3)
Prerequisite: Physics 202; *corequisite:* Mathematics 315. Principles of thermodynamics and heat transfer; response of molecules to temperature effects illustrated by introduction to kinetic theory and statistical mechanics. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Physics Seminar (1)
One semester required, with a maximum of four semesters allowed.

499 Honors Work in Physics (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

POLITICAL SCIENCE

Dr. Dixon, *chairman*. Dr. Ahmad, Ms. Dwight, Mr. Lowery.

111 Introduction to Political Science (3)
The study of political science as a discipline; its nature, methods and techniques. An introductory survey of existing knowledge about politics and political systems, including theories and characteristics of political institutions within and among nation-states. Three hours each week.

205 American National Government (3)
Introduction to American national government and politics. Emphasis on structure, processes, and basic principles such as federalism, separation of powers, and judicial review. Three hours each week.

206 American State Government and Politics (3)
A survey and analysis of the organization, functions, and political processes of the American states. Three hours each week.

207 American Urban Government and Politics (3)
A study of the structure, functions, political processes, problems and trends in American city and metropolitan government and politics. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of the department chairman.

300,301 American Constitutional Law (3,3)
Prerequisite: Political Science 205. An intensive study of the Supreme Court decisions which have contributed to the contemporary interpretation of the United States Constitution. The treatment is analytical rather than historical. 300 is concerned with decisions involving the powers of the judicial, executive and legislative branches of the national government, the relationships among these branches, and the federal system. 301 (formerly 406) is a study of decisions involving the Bill of Rights, the 14th Amendment and other provisions which protect individual rights and liberties. Three hours each week.

302 Public Opinion and Democracy (3)
Prerequisite: Political Science 111 or 205 or consent of instructor. An examination of the origin, content, and policy impact of public opinion in democratic nations, with major emphasis on the contemporary American experience. Three hours each week.

303 Elections and Voting Behavior (3)
Prerequisite: Political Science 111 or 205 or consent of instructor. An evaluation of the impact of citizen beliefs and preferences on election outcomes. The course is structured around a critical examination of the assumptions, findings and interpretations of the major voting studies since World War II. Three hours each week.

304 Introduction to Public Policy Analysis (3)
A study of the theories and methods of analyzing and explaining public policy and the substance of recent domestic policies in the areas of public finance and human and physical resources, including welfare, education, protection of the environment, housing, health, urban renewal and transportation. Three hours each week.

307 The American Legislature (3)
Prerequisite: Political Science 205. Functional study of legislative bodies and lawmaking. Among the topics studied will be the role of legislatures; the impact of constituencies, parties, interest groups, interpersonal relationships and other pressures on legislators; legislative structure; and the decision-making process. Three hours each week.

308 Public Administration (3)
Prerequisite: Political Science 205. Introduction to public administration in the United States. Nature and scope of public administration, public interest in the administrative process, role of administrators, formal and informal organization, public personnel and financial management. Three hours each week.

309 The American Chief Executive (3)
Prerequisite: Political Science 205. An examination of the concept of a political chief executive as a coordinate member, with legislature and courts, of a government team. Emphasis will be placed on the powers, roles, decision-making processes, and institutional development of the offices of president, governor, and mayor. Three hours each week.

310 (Philosophy 310) Legal Philosophy and Jurisprudence (3)
Prerequisite: Junior standing and/or consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include natural law; historical, analytical and sociological jurisprudence; idealism; utilitarianism; legal realism; equity, justice, precedent, custom and law; and the relation of law and morality. Three hours each week.

311 Research Methods in Political Science (3)
An introduction to the rationale and application of both traditional and empirical methods of political analysis. Major topics include statement of problem, survey of literature, theory construction, data collection and analysis, and presentation of findings and conclusions. Three hours each week.

314 Modern Political Thought (3)
A critical examination of political ideas from 1500 to 1900 with special attention to those of Machiavelli, Hobbes, Locke, Rosseau, Montesquieu, Hume, Burke, Hegel, Bentham, Marx, the Mills, Spencer, T. H. Green and Nietzsche. Three hours each week.

315 Contemporary Political Ideologies (3)
A study of the concept of ideology and its significance in the modern world. Systematic analysis of the major political ideologies of the 19th and 20th centuries with emphasis on democracy, communism, fascism, nationalism, anarchism, and the New Left. Three hours each week.

330 Political Systems of Africa (3)
The governments and politics of selected sub-Saharan African states. A survey from colonial days to the present with emphasis on the contemporary economic, social and political problems. Three hours each week.

335 European Political Systems (3)
Political institutions and processes of selected European countries, including Great Britain, France and Germany. Three hours each week.

336 Political Systems of the Soveit Union and Eastern Europe (3)
A comparative study of the political institutions and processes of the Soviet Union and the eastern European countries; the post-Stalin dynamics and the nature and significance of contemporary changes. Attention will be given to their foreign relations, especially with Communist China. Three hours each week.

338 Political Systems of the Middle East (3)
The governments and politics of the Middle East with emphasis on the changes that have occurred since 1945. A detailed examination of the forces that have shaped contemporary Middle Eastern politics: Islam, nationalism, modernization, and current political trends. The political institutions and processes and the domestic and foreign policies of selected countries will be studied. Three hours each week.

339 Political Systems of Asia (3)
The political systems of selected Asian countries. Special emphasis on the contemporary political, social and economic problems of India, Pakistan, Japan, China, Indonesia and other Asian countries. Three hours each week.

340 Blacks In American Politics (3)
Prerequisite: Political Science 111 or 205 or consent of instructor. A study of American political institutions and processes through the eyes of Black America. This study will analyze the power structure in the black community, dissent and protest, black participation in the political system, black leaders and politicians and their politics, and the uniqueness of black politics as compared with the wider spectrum of the political system. Three hours each week.

405 American Parties and Pressure Groups (3)
An historical and analytical treatment of the appearance and realignment of political parties during the five successive "national party systems" since the beginning of the republic. Special emphasis is given to the question of contemporary party disarray and potential realignment. Three hours each week.

407 The American Judicial Systems (3)
Prerequisite: Political Science 205. Analysis of the organization, powers and role of the judiciary. Topics studied will include the political role of American judges, factors influencing judicial policy-making, selection of judges, the role of lawyers, and socio-metric relationships within the judiciary. Three hours each week.

415 American Political Thought (3)
American political thought from the colonial period to the present. Three hours each week.

425 International Politics (3)
Nature of international relations including analyses of basic factors motivating national policies; the United Nations and other international organizations as institutions for promoting peace and welfare in a world of sovereign states. Three hours each week..

426 International Law (3)
Prerequisite: Political Science 205. Nature, development and basic concepts of international law. Examination of scope, sources and sanctions of international law; its relation to municipal law; the rights and duties of

states and individuals; methods of settling international disputes. Characteristic cases used as illustrations. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of the department chairman.

499 Honors Work in Political Science (2-3)
Prerequisite: Eligibility for honors program and junior or senior standing. Individual study for honors students.

PSYCHOLOGY

Dr. Williams, *chairman*. Dr. Bradley, Dr. Brown, Dr. Gerstenhaber, Dr. Jackson, Dr. Kowal, Dr. Newton, Dr. Slager.

105 General Psychology (3)
Principles of psychology with emphasis on scientific methods used in studying human behavior. Three hours each week.

105-51 General Psychology Laboratory (1)
Prerequisite or co-requisite: Psychology 105. Practice of laboratory methods used in the study of behavior. Two hours each week.

145 Psychology Applied To Human Life (3)
A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment. Three hours each week.

216 Educational Psychology (3)
Prerequisite: Psychology 105 is suggested. Application of psychology to education principles of learning, motivation, individual differences. Three hours each week.

220 Child Psychology (3)
Physical and psychological development of the human during childhood; problem areas emphasized. Three hours each week.

221 Adolescent Psychology (3)
Physical and psychological development of the human during adolescence; problem areas emphasized. Three hours each week.

225 Introductory Statistics for the Behavioral Sciences (4)
Prerequisite: Psychology 105 and three credit hours in mathematics. Introduction to the statistical techniques most often used by behavioral scientists for either descriptive purposes or hypothesis testing. Although emphasis will be upon parametric techniques, certain nonparametric tests will be included with consideration of which statistical procedures are appropriate with various experimental designs. Three lecture and two laboratory hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of department chairman.

310 Sensation and Perception (3)
Prerequisite: Psychology 105. A consideration of basic perceptual processes, problems of sensory processing, measurement of sensations, and

simple and complex events. Such topics as perceptual cues, constancies, illusions, and person perception will be considered. Three hours each week.

318 Psychology of Motivation (3)
Prerequisite: Psychology 105. Psychology 355 is suggested. A study of the parameters and theories of motivation; both appetitive and aversive drives will be considered. These will be examined as they arise from physiological needs and from learning. Data from animal as well as human studies will be considered. Three hours each week.

322 Psychology of Exceptional Children (3)
Prerequisite: Three semester hours of psychology. A study of the characteristics and needs of impaired and gifted children. Three hours each week.

336 Industrial Psychology (3)
Prerequisite: Psychology 105. The study of psychological techniques in personnel selection and placement, merit rating, reduction of accidents, training, morale, and other factors utilized in industrial work. Three hours each week.

346 Psychology of Personality (3)
Prerequisite: Psychology 105. A study of the basic facts concerning the structure, organization, and adjustmental mechanisms of personality. Three hours each week.

447 Psychopathology (3)
Prerequisite: Psychology 105. The study of behavioral pathology. Emphasis will be placed on the underlying factors of the neuroses, psychoses, and character disorders. Three hours each week.

355 Introduction to Experimental Psychology (4)
Prerequisite: Psychology 225. Techniques used in data collection, analysis, and reporting in behavioral experiments. Three lecture and two laboratory hours each week.

365 Social Psychology (3)
Prerequisite: Psychology 105. The study of behavior as a function of group situations. Three hours each week.

370 (Environmental Studies 370) Environmental Psychology (3)
Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

405 History and Systems of Psychology (3)
Prerequisite: Fifteen semester hours credit in psychology. History of psychology relative to current trends. Three hours each week.

410 Cognitive Psychology (3)
Prerequisite: Psychology 105 and 310 or consent of instructor. An introduction to theories of cognitive processing in humans as applied to the problems of memory, language, and perception with special emphasis on the role of organization. Three hours each week.

417 Psychology of Learning (3)
Prerequisite: Psychology 105. Psychology 355 is suggested. A study of the basic facts related to the learning process. The effects of reinforcement extinction, generalization, and discrimination are considered as well as other phenomena of the learning process. Three hours each week.

420 Developmental Psychology (3)
Prerequisite: Psychology 105; Psychology 355 is suggested. A study of the principles and processes underlying the changes occurring during the normal development of humans and non-humans. Motor, social and intellectual development are emphasized. Three hours each week.

425 Psychological Tests and Measurements (4)
Prerequisite: Psychology 105 and 225 or consent of the instructor. Introduction to theory and practice of test construction, including a survey of intelligence, achievement and personality tests and their applications. Three lecture and two laboratory hours each week.

449 Psychology of Death (3)
Prerequisite: Psychology 105. A study of psychological aspects of death and dying. Man's conceptualization of and behavior toward his own demise will be studied. Special emphasis will be placed on the behavioral context surrounding terminal illness, suicide, and homicide. Psychological aspects of gerontology will also be considered. Three hours each week.

450 Introduction to Counseling (3)
Prerequisite: Psychology 346 and 347. The major historical and contemporary theories of counseling including Freudian, client-centered, behavioristic and existential will be reviewed. Examination of each theory will be accompanied by demonstration and role-play situations in which the elements of each theory are explored. Three hours each week.

451 Supervised Counseling Practice (3)
Prerequisite: Psychology 450 and consent of instructor. This course will provide for supervision of student practice in application of counseling skills and techniques in a variety of in-service situations. The student will participate in supervised counseling experiences in local social service agencies. The emphasis will be upon practice of skills combined with regular consultation with the supervisor. May be repeated once for additional credit. Three hours each week.

452 Ethical Principles in Psychology (1)
Prerequisite: Permission of the instructor. A study of the ethical considerations involved in counseling and psychotherapy, psychological testing, and the use of human subjects in research. Three hours each week.

455 Psychological Experimentation (3)
Prerequisite: Psychology 355 and consent of instructor. Practical experience in the design and implementation of psychological experimentation. Each student will design and conduct an individual research project and a laboratory exercise for students in Psychology 255. Three hours each week.

456 Physiological Psychology (3)
Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of the anatomy of the nervous system and the roles which various neural structures play in the control of behavior. Three hours each week.

457 Animal Behavior (3)
Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of animal behavior including the traditional areas of ethology and comparative psychology. Primary emphasis is upon the similarities and differences in the behaviors of animals occupying various phylogenetic positions. Three hours each week.

465 Community Psychology (3)
Prerequisite: Psychology 105. Psychology 365 is suggested. A study of the contributions of psychology to the understanding of an individual's behavior as influenced by his community environment. A major consideration will be given to the problems associated with community mental health. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Topical Seminar (1-3)
Prerequisite: Psychology 105 and consent of instructor. Discussion of selected topics in psychology. May be repeated for additional credit.

499 Honors Work in Psychology (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

SOCIOLOGY AND ANTHROPOLOGY

Dr. Scalf, *chairman*. Mr. Bourlon, Mr. Brooks, Mrs. Blanks, Mr. Fields, Mr. Larsen, Dr. Loftfield, Dr. Sabella, Mr. Sharp, Dr. Sieverdes, Ms. Tiblier, Mr. Wasson. Wasson.

ANTHROPOLOGY

105 Introduction to Anthropology (3)

Introduction to the physical, archaeological, linguistic, and ethnological fields of anthropology; biological and cultural evolution of man. Three hours each week.

205 (Sociology 205) Human Societies (3)
Prerequisite: Anthropology 105. The evolution of man and societies. Societal evolution as seen as an extension of and/or parallel to biological evolution. A movement from simple to complex forms of societies as analyzed from an emphasis upon sustenance activity as the primary organizing principle of societies. Three hours each week.

206 Cultural Anthropology (3)
Prerequisite: ANT 105. A presentation of the content and historical development of cultural anthropology. Deals with the cultural relativism, ethnocentrism, institutional analysis and cultural integration and shifts in theoretical perspectives by comparing ethnographies of selected cultures. Three hours each week.

207 Archaeology (3)
The concepts and aims of archaeology, its history as a scientific discipline

and its present role in the social sciences. Attention to basic principles in field work and to recent advances. Three hours each week.

210 Evolution of Man and the Development of Culture (3)
Critical analysis of the fossil evidence leading to current theories of human evolution. Examination and correlation of fossil remains and artifacts preserved in the geologic record as related to the anatomy and behavior of living human and non-human primate groups. Three lecture hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of instructor.

302 Economic Anthropology (3)
Prerequisite: Anthropology 105. Primitive tribal and peasant economic systems are viewed through the use of case studies and theoretical materials. The aim of the course is to present an overview of the field by reviewing the major theoretical positions (and controversies). It further provides a brief critique of the development of economic anthropological theory. Three hours each week.

304 Indians of South America (3)
Prerequisite: Anthropology 105. This course will acquaint the student with human populations and their adaptations to the South American continent. Approximately equal emphasis is given to lowland tribes and Andean cultures. Both of these will be studied from an historic perspective spanning the entire period of man's presence on the continent. Three hours each week.

305 Indians of North America (3)
Survey of North American Indian tribes; subsistence patterns reflected through cultural adaptation to various ecotypes; archaeological analysis of the interplay of Asian and Mexican influences; restructuring of North American Indian cultures as a consequence of European influence. Three hours each week.

306 Principles of Kinship (3)
Prerequisite: ANT 105. This course deals with the structures and functions of kinship in a variety of cultures as a background for the study of complex cultural patterns. Three hours each week.

307 New World Archaeology (3)
Prerequisite: Anthropology 105. The entry of man into North America and South America will be examined using archaeological data. Other topics will include the post-Pleistocene expansion of big game hunters, woodland hunter-gatherers, and the development of agricultural societies. Diffusion versus independent invention will be considered. Three hours each week.

308 Marine Archaeology: Methods and Theory (3)
Prerequisite: Anthropology 105, Anthropology 207 and diver certification. This course is designed to introduce the archaeologist to the field of underwater archaeology. Both classroom and field sessions will be required. Theory will be derived from the existing literature. The role of the archaeologist as an underwater scientist will be emphasized. Three hours each week.

309 Environment and Archaeology (3)
Prerequisite: Anthropology 207. An ecological framework for the study of prehistoric human populations is presented. Man-land relationships

during prehistoric times are examined, as is the role of natural environment as a contributing factor in cultural and biological evolution. Three hours each week.

310 Marine Archaeology: Field Practicum (3-6)
Prerequisite: Anthropology 105, Anthropology 207, Anthropology 308 and diver certification (Anthropology 308 and Anthropology 310 may be taken concurrently). Practical field methods will be taught utilizing actual underwater prehistoric or historic sites. Survey techniques, excavation, record-keeping and preservation will be stressed and adapted to a submarine environment.

311 Field Methods in Archaeology (3-6)
Prerequisite: Anthropology 207. Practical field methods of land-site archaeology will be taught through the excavation of local archaeological sites. Scientific excavation, sampling, and preservation techniques will be presented as the basic tools of the archaeologist.

350 Maritime Anthropology (3)
Prerequisite: Anthropology 105. A cross-cultural comparison of past and present maritime populations from selected parts of the world. Emphasis will be placed upon the natural environmental settings and related cultural adaptations. Both intra- and inter-group interaction will be stressed as well. Three hours each week.

405 Development of Man (3)
Prerequisite: Anthropology 105 and ANT/ERS 210. Introduction to the fossil evidence of hominid phylogeny; survey of selected significant prehistoric hominid finds and associated lithic industries; some explanatory hypotheses relating to genetic and ecological variables as determinant factors in man's development. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-6)
Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

499 Honors Work in Anthropology (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

CRIMINAL JUSTICE

245 Police in a Changing Society (3)
Prerequisite: Sociology 105. Evolution of law enforcement systems and practices through the ages. Emphasis will be placed on the effects of societal changes and on survey of comparative police systems. Three hours each week.

255 The Criminal Justice System (3)
Prerequisite: Sociology 105. A study of the various components of North Carolina's criminal justice system will include an analysis of the structure and function of law enforcement agencies, the court system, corrections and probation systems. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of instructor.

301 (Social Work 301) Methods and Techniques of Social Welfare and Rehabilitation Services (3)
Prerequisite: Sociology 105. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and the utilization of systematic processes of problem solving in the delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

306 (Social Work 306) Evaluative Methods for Service Agencies (3)
Prerequisite: Sociology 301, Mathematics 265 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

356 Critical Issues in Criminal Justice (3)
Prerequisite: Sociology 255. This course will be a study of crime, lawlessness, civil unrest and violence as issues relating to the administration of criminal justice, focusing on the current role of the system, the problems arising from attempting to fill that role, and some role modification that will improve the general operation of the criminal justice system. Three hours each week.

395 Corrections (3)
Prerequisite: Criminal Justice 255. An historical review of societal patterns of punishment, an in-depth analysis of the diversity of alternatives to incarceration, and an examination of practical data related to counselor-counselee relationships in correctional settings are course objectives. Three hours each week.

405 Criminal Justice Administration (3)
Prerequisite: Criminal Justice 255, 356 and consent of instructor. A concentration on management techniques for each administrative segment of criminal justice: the police, the courts, prosecution/defense, probation, parole and corrections. It will offer alternative models, based on a systems approach to function and role, that relate each criminal justice sub-system administratively to the others. Three hours each week.

490 Criminal Justice Practicum (3-6)
Prerequisite: Junior or senior standing and consent of instructor. A course designed to acquaint students with the criminal justice agencies of all governmental levels. Observation of agency programs and activities in applied criminal justice are integrated with formalized knowledge gained in the classroom to provide the student with beginning knowledge, skills and attitudes consistent with his career plans.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-4)
Prerequisite: Junior or senior standing and consent of instructor. Consideration of special topics not dealt with in regular courses.

SOCIAL WORK

235 Introduction to Social Work (3)
History, methods, and practice in professional social work in the United States. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of instructor.

301 (Criminal Justice 301) Methods and Techniques of Social Welfare and Rehabilitation Services (3)
Prerequisite: Sociology 105. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and the utilization of systematic processes of problem solving in the delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

302 Social Work Methods II (3)
Prerequisite: Sociology 235 and Sociology 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problem-solving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected human service agency is required. Three hours each week.

303 Social Welfare and Rehabilitation: Services, Policies, Issues and Programs (3)
Prerequisite: Sociology 235. A problematic approach to situations that affect policies, issues, programs and services in social work and rehabilitation services. An attempt to aid the student in developing an analytical and critical understanding as he explores the motivation and methods by which social work and rehabilitation services policies and programs are being developed by our society and other countries. Three hours each week.

306 (Criminal Justice 306) Evaluative Methods for Service Agencies (3)
Prerequisite: Sociology 301, Mathematics 265 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

318 Social Work and Health Care Delivery
Prerequisite: SWK 235. An examination of the rationale, issues, problems and practices related to the implementation of client-centered health care. New programs and proposals for the delivery of health services will be reviewed systematically with reference to the implications for social work practice.

336 Suicidology and Crisis Intervention (3)
Prerequisite: Sociology 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is

placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventive techniques that are appropriate for individuals, groups and communities are explored. A common theoretical frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crisis, as well as abnormal and accidental crises. Three hours each week.

396 Community Organization and Social Practice (3)
Prerequisite: Sociology 105. The course analyzes a variety of forms of community organization practice, focusing on definition of goals, values, roles and skills required for professional practice. Community organization is viewed as a process of bringing about desirable changes in community life. Community needs and resources available to meet these needs are studied. Three hours each week.

490 Social Work Practicum (3-6)
Prerequisite: Sociology 105, Social Work 235, 301 and 303. A field experience in selected social agencies designed to permit student application and integration of cognitive and affectual learning with a formalized service system. Learning experiences and content are designed to gain and demonstrate beginning knowledge, attitudes and skills which are consistent with the concepts of social practice. The student will participate in a two hour weekly seminar.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-4)
Prerequisite: Sociology 105, Social Work 235 and consent of instructor. A consideration of special topics not dealt with in regular courses.

SOCIOLOGY

105 Introduction to Sociology (3)
Science of human society emphasizing physical basis of society, culture, collective behavior, population, and social institutions. Analytical approach stressed. Three hours each week.

205 (Anthropology 205) Human Societies (3)
Prerequisite: Sociology 105. The evolution of man and societies. Societal evolution as seen as an extension of and/or parallel to biological evolution. A movement from simple to complex as analyzed from a focus upon sustenance activity as the primary organizing principle of societies. Three hours each week.

215 Modern Social Problems (3)
Social controls and the sociology of revolutionary change. Problems related to race, family, crime, delinquency, and social disorganization. Three hours each week.

225 Collective Behavior and Social Movements (3)
Prerequisite: Sociology 105. Analysis of social behavior breaking with existing patterns and expectations, such as riots, crowds, revolution, and social movements. Three hours each week.

291 Directed Individual Study (1-3)
Freshman or sophomore standing and consent of instructor.

305 Population (3)
Prerequisite: Sociology 105. A study of the changes in size, composition, distribution of population and the dynamics underlying them. Three hours each week.

315 Urban Sociology (3)
Prerequisite: Sociology 105. Analysis of the history and development, social organization, and problems of the city. Three hours each week.

316 Human Ecology (3)
Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

325 American Minority Relations (3)
Prerequisite: Sociology 105. Analysis of inter-group relationships; basis of conflict, stratification and assimilation; nature, consequence, and sources of discrimination and prejudice; minority reactions to dominance. Three hours each week.

335 The Sociology of Deviant Behavior (3)
Prerequisite: Sociology 105. The analysis of certain behavior in terms of deviations from norms; the application of sociological and psychological concepts and theory to deviant behavior, and the critical evaluation of nonsociological research and theories. Three hours each week.

345 The Family (3)
Prerequisite: Sociology 105. Origin and development of the family as a social institution from an historical and comparative approach; analysis of forms and functions of the family: socialization, mate selection, procreation. Three hours each week.

346 Sociology of Religion (3)
Prerequisite: Sociology 105. An analysis of the structure, function and process of religion, emphasizing the reciprocal relation of religion and culture and religious differentiation and institutionalization. Three hours each week.

350 Sex Roles in Society (3)
Prerequisite: Sociology 105. The differentiation of both ascribed and achieved roles in modern society based on the variable of sex of the individual, conditions which serve to maintain or to weaken the normative patterns, and consideration of some of the consequences of differentiation. The effects of sex-role socialization on political, occupational, and educational behavior, with emphasis placed on stability and change. Three hours each week.

355 Criminology (3)
Prerequisite: Sociology 105. The nature, variation and causes of crime are studied as aspects of the American culture. Three hours each week.

365 (Psychology 365) Social Psychology (3)
Prerequisite: Sociology 105 or Psychology 105. The study of behavior as a function of group situations. Three hours each week.

366 Social Change (3)
Prerequisite: Sociology 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change, direction of change, mechanism of change, and planning of change. Three hours each week.

375 Juvenile Delinquency (3)
Prerequisite: Sociology 105. The analysis and description of the problem of juvenile delinquency as it exists in a changing contemporary society. Three hours each week.

385 The Community (3)
Prerequisite: Sociology 105. A study of social organization and process in modern communities with stratification, power structure and disorganization being accentuated. Three hours each week.

386 Occupations and Social Structure (3)
Prerequisite: Sociology 105 and three additional hours in Sociology or Economics. An analysis of the place of work in society. This course examines occupational structures as the primary link between persons and the larger society. Topics to be included are the growth and development of occupational structure, occupations and technological change, occupations and status, occupations and organizational complexity, and other system features which influence or are influenced by the occupational structure. Three hours each week.

405 Methods I: Theory Construction and Non-Parametric Statistics (3)
Prerequisite: Sociology 105, Statistics 265, Computer Science 205. The student will be introduced to the process of constructing theories relative to social relations. There will also be a segment of time used to introduce those non-parametric statistics that are most often used with either nominal or ordinal data. Three hours each week.

406 Methods II: Survey and Analysis (3)
Prerequisite: Sociology 405. The core of this course will be built around an actual analysis experience giving the student an opportunity to use the tools acquired in Sociology 405 and related courses. Three hours each week.

415 Social Classes (3)
Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Study of one of the basic structures in society, its nature and functions. Also provides socio-psychological discussion of American society from the perspective of the stratification system, with consideration of the life style and value system of each major social class category. Three hours each week.

445 Complex Organizations (3)
Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Examination of theory and research on structure and processes of large scale formal organizations in Western society; consideration of industrial-commercial governmental, religious, military, political and educational organizations. Three hours each week.

455 Social Theory (3)
Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. A review of the significant trends of development

in sociological theory with emphasis on the relationship of theory to research. Three hours each week.

466 Social Planning (3)
Prerequisite: Sociology 105 and six additional hours in sociology above the introductory level. Examination and analysis of the theories and processes of social planning including the critical review of directed social change, social intervention, and organizational adaptation. Three hours each week.

490 Senior Project (3)
Prerequisite: Sociology 105, 405, 406 and senior status. A personal study of a segment of the community will be undertaken by each major. There will be an analytical paper written after actual data has been acquired preferably through a personal confrontation within an institutional setting. Three hours each week.

491 Directed Individual Study (1-6)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-6)
Prerequisite: Sociology 105 and consent of instructor. Consideration of special topics not regularly dealt with in regular courses.

499 Honors Work in Sociology (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

SOCIAL WORK

(See Sociology and Anthropology)

SPANISH

(See Modern Languages)

STATISTICS

(See Mathematical Sciences)

UNC-W

FACULTY

THE FACULTY

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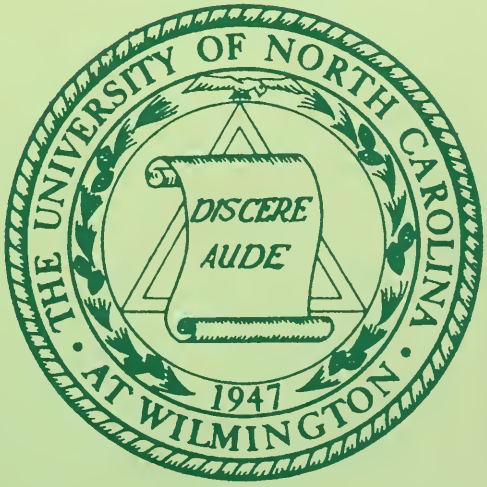
Chancellor's Office

1977-78

The UNIVERSITY of NORTH CAROLINA at WILMINGTON



BULLETIN 29
CATALOGUE ISSUE 1977
Announcements 1977-78

The University of North Carolina at Wilmington 1977

WILMINGTON, NORTH CAROLINA 28401

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NOVEMBER

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1978

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OCTOBER

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NOVEMBER

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JANUARY

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APRIL

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AUGUST

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SEPTEMBER

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OCTOBER

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NOVEMBER

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DECEMBER

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CALENDAR OF EVENTS
1977-78

FALL SEMESTER 1977

August 28, Sunday	Dormitory opens
August 29, Monday	Orientation/Registration Faculty meeting, 4:00 p.m.
August 30, Tuesday	Registration-late registration fee of $7.50 charged for all registering after this date
August 31, Wednesday	Classes begin
September 5, Monday	Holiday
September 7, Wednesday	Last day for registration
September 7, Wednesday	Last day to add a class or to drop a class without a grade
October 31, Monday	Graduation application deadline—Spring 1978
November 15, Tuesday	Last day to withdraw with WP or WF
November 17, Thursday	Faculty meeting, 4:00 p.m.
November 22, Tuesday	Thanksgiving vacation begins 10:30 p.m.
November 28, Monday	Thanksgiving vacation ends 8:30 a.m.
December 9, Friday	Last day of classes
December 12-16, Monday-Friday	Final Exams
December 19-20, Monday-Tuesday	Final Exams
December 20, Tuesday	Fall Semester ends

SPRING SEMESTER 1978

January 8, Sunday	Dormitory opens
January 9, Monday	Registration-late registration fee of $7.50 charged for all registering after this date
January 10, Tuesday	Classes begin
January 17, Tuesday	Last day for registration
January 17, Tuesday	Last day to add a class or to drop a class without a grade
February 2, Thursday	Faculty meeting, 4:00 p.m.
February 24, Friday	Graduation application deadline—Summer 1978
March 17, Friday	Spring holidays begin, 10:30 p.m.
March 28, Tuesday	Spring holidays end, 8:30 a.m.
April 4, Tuesday	Last day to withdraw with WP or WF
April 20, Thursday	Faculty meeting, 4:00 p.m.
April 28, Friday	Last day of classes
May 1-5, Monday-Friday	Final Exams
May 8-9, Monday-Tuesday	Final Exams
May 9, Tuesday	Spring Semester ends
May 14, Sunday	Commencement

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ADMINISTRATIVE OFFICERS AND STAFF OF THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

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William H. Wagoner, Ph.D.
James K. McGowan, Ph.D., *Assistant to the Chancellor*

ACADEMIC AFFAIRS

Charles L. Cahill, Ph.D., *Vice Chancellor for Academic Affairs*
Isabell L. Foushee, M.A., *Assistant to the Vice Chancellor for Academic Affairs*
Daniel B. Plyler, Ph.D., *Academic Dean*
John L. Stokes, Ph.D., *Assistant to the Academic Dean and Director of Special Programs*
Dorothy P. Marshall, B.S., *Director of Admissions and Records*
L. Murrie Lee, M.A.Ed., *Assistant Director of Admissions*
Douglas L. Johnson, B.S., *Assistant to the Director of Admissions*
Carolyn R. Cogdell, M.A.Ed., *Admissions Counselor*
William H. Browder, M.P.A., *Director of Continuing Education*
W. Frank Bowen, B.A., *Assistant Director of Continuing Education*
Ralph W. Brauer, Ph.D., *Director of the Institute of Marine Biomedical Research*
Eugene W. Huguelet, M.L.S., *Director of Library Services*

STUDENT AFFAIRS

William M. Malloy, Ph.D., *Vice Chancellor for Student Affairs*
Helena R. Cheek, M.A., *Dean of Students*
Ralph H. Parker, M.Ed., *Dean of Students*
Charles W. King, M.A., *Assistant Dean of Students for Residence Life*

Darwin R. Newton, Ed.D., *Director of Counseling and Testing*
James B. Slager, Ph.D., *Psychological Counselor*
Joseph V. Capell, M. Div., *Director of Financial Aid*
Paul Al Harris, Jr., M.A., *Acting Director of Student Activities*
Lynn J. Grissette, B.A., *Coordinator of Veterans' Affairs*
Daniel Gottovi, M.D., *University Physician*
Linda Jasinski, F.N.P., *University Nurse*
Catherine Van Gellow, F.N.P., *University Nurse*

BUSINESS AFFAIRS

Darryl W. Bierly, M.S. Bus. Adm., *Vice Chancellor for Business Affairs*
Robert O. Walton, Jr., B.A., *Comptroller*
Timothy Jordan, M.B.A., *Director of Accounting*
Charles L. Sanders, III, *Purchasing Officer*
Catherine D. Kiger, *Personnel Officer*
Davis B. Lumpkin, P.E., *Plant Engineer*
Charles N. Long, *Chief of Security Force*
James K. Clark, B.S., *Director of Auxiliary Services and Grants and Contracts*
Alfred Barry, M.S., *Safety Officer*

SUPPORTING SERVICES

William J. Brooks, M.S., *Director of Athletics*
Gwendolyn Culbreth, B.A., *Director of Information Services*
Robert E. Fry, M.S.P.H., *Director of Institutional Research*
Tyrone Rowell, M.A., *Director of Development*
Donald B. Trivette, B.E.D., *Director of Academic Computing Services*

THE UNIVERSITY

OFFICERS OF GENERAL ADMINISTRATION

WILLIAM CLYDE FRIDAY, B.S., LL.B., LL.D., *President*
RAYMOND HOWARD DAWSON, B.A., M.A., Ph.D., *Vice President—Academic Affairs*
L. FELIX JOYNER, A.B., *Vice President—Finance*
JOHN L. SANDERS, A.B., J.D., *Vice President—Planning*
CLEON FRANKLYN THOMPSON, B.S., M.S., *Vice President—Student Services and Special Programs*
EDGAR WALTON JONES, B.S., M.S., Ph.D., *Vice President—Research and Public Service Programs*
GEORGE ELDRIDGE BAIR, B.A., M.A., Ph.D., *Director of Educational Television*
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JAMES L. JENKINS, JR., A.B., *Assistant to the President*
JOHN P. KENNEDY, JR., S.B., B.A., M.A., J.D., Secretary to the University
ARNOLD KIMSEY KING, A.B., A.M., Ph.D., *Assistant to the President*
ROSCOE D. MCMILLAN, JR., B.S., *Assistant to the President for Governmental Affairs*
RICHARD H. ROBINSON, JR., A.B., LL.B., *Assistant to the President*
ROBERT W. WILLIAMS, A.B., M.A., Ph.D., *Associate Vice President—Academic Affairs*

Sixteen Constituent Institutions

The University of North Carolina was chartered in 1789 and opened its doors to students at its Chapel Hill campus in 1795. Throughout most of its history, it has been governed by a Board of Trustees chosen by the Legislature and presided over by the Governor. During the period 1917-1972, the Board consisted of one hundred elected members and a varying number of *ex-officio* members.

By act of the General Assembly of 1931, without change of name, it was merged with The North Carolina College for Women at Greensboro and The North Carolina State College of Agriculture and Engineering at Raleigh to form a multicampus institution designated The University of North Carolina.

In 1963 the General Assembly changed the name of the campus at Chapel Hill to The University of North Carolina at Chapel Hill and that at Greensboro to The University of North Carolina at Greensboro and, in 1965, the name of the campus at Raleigh was changed to North Carolina State University at Raleigh.

Charlotte College was added as The University of North Carolina at Charlotte in 1965, and, in 1969, Asheville-Biltmore College and Wilmington College became The University of North Carolina at Asheville and The University of North Carolina at Wilmington respectively.

BOARD OF GOVERNORS
THE UNIVERSITY OF NORTH CAROLINA

William A. Johnson, Chairman
Mrs. Howard Holderness, Vice Chairman
E. B. Turner, Secretary

Class of 1977

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George Watts Hill, Durham
Wallace N. Hyde, Asheville
Robert B. Jordan, III, Mount Gilead
Mrs. John McCain, Wilson
Reginald F. McCoy, Laurinburg
Maceo A. Sloan, Durham
Thomas J. White, Jr., Kinston

Class of 1979

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Dr. Hugh S. Daniel, Jr., Waynesville
William A. Dees, Jr., Goldsboro
Jacob H. Froelich, Jr., High Point
William A. Johnson, Lillington
E. B. Turner, Lumberton
Mrs. George D. Wilson, Fayetteville

Class of 1981

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Philip G. Carson, Asheville
T. Worth Coltrane, Asheboro
Luther H. Hodges, Jr., Charlotte
Mrs. Hugh Morton, Linville
J. J. Sansom, Jr., Raleigh
David J. Whichard, II, Greenville

Class of 1983

Irwin Belk, Charlotte
Wayne Corpening, Winston-Salem
Daniel C. Gunter, Gastonia
Mrs. Howard Holderness, Greensboro
John R. Jordan, Jr., Raleigh
J. Aaron Prevost, Hazelwood
Louis T. Randolph, Washington
Harley Shuford, Jr., Hickory

THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

The University of North Carolina at Wilmington was founded in 1947 as Wilmington College, a locally supported and governed institution, to provide the youth and adults of New Hanover County and southeastern North Carolina an opportunity for two years of university parallel study, semiprofessional training and vocational-technical education at moderate expense. From these beginnings and goals and through a series of transformations with ever widening programs and aspirations, the institution has become a part of The University of North Carolina, whose purpose, resources and direction it shares.

The university at Wilmington is a community of scholars dedicated to teaching, learning and creating, and to extending knowledge through research. Its objective is to stimulate a creative spirit, to fire imagination, to promote curiosity and to teach students to make valid judgments concerning activities and values as well as to think with clarity and to communicate with fluency and accuracy in the realms of empirical facts and abstract ideas.

The programs offered by the university are designed to serve a broad spectrum of abilities and interests in the liberal arts and sciences. To implement these programs, most of which lead to the baccalaureate degree, the university provides undergraduate instruction and research opportunities in fine arts, humanities, natural sciences, social sciences, teacher education and other professional disciplines. Moreover, the geographical location of the university at Wilmington, the only campus of The University of North Carolina adjacent to the ocean, in a region rich in history and yet modern in industrial development, provides a challenge to be innovative. As the university progresses, its special environment as well as the needs of its constituency will play a major part in the development in scope and depth of established programs and in the initiation of new ones.

HISTORY AND BACKGROUND

Education on the college level first came to Wilmington in 1946 when a college center was established under the direction of the

North Carolina College Conference and under the administration of the Directorate of Extension of The University of North Carolina at Chapel Hill. The center offered courses on the freshman level to some 250 students during the academic year 1946-47. In 1947 a tax levy was approved by the citizens of New Hanover County, and Wilmington College was brought into existence as a county institution under the control of the New Hanover County Board of Education. In 1948 Wilmington College was officially accredited by the North Carolina College Conference and became a member of the American Association of Junior Colleges. In 1952 the institution was accredited as a junior college by the Southern Association of Colleges and Schools.

In 1958 New Hanover County voted to place the college under the Community College Act of the State of North Carolina. By virtue of this vote, the college became a part of the state system of higher education, and control passed from the New Hanover County Board of Education to a board of twelve trustees, eight of whom were appointed locally and four of whom were appointed by the governor of the state. At the same time, the requirements for admission and graduation and the general academic standards of the college came under the supervision of the North Carolina Board of Higher Education, and the college began to receive an appropriation from the state for operating expenses in addition to the local tax.

On July 1, 1963, by an act of the General Assembly of North Carolina, Wilmington College became a senior college with a four-year curriculum, authorized to offer the bachelor's degree.

By vote of the Board of Trustees of The University of North Carolina in late 1968, with subsequent approval by the North Carolina Board of Higher Education, and by an act of the General Assembly of North Carolina in 1969, Wilmington College became, on July 1, 1969, The University of North Carolina at Wilmington. It, and the institution in Asheville previously designated as Asheville-Biltmore College, became the fifth and sixth campuses of The University of North Carolina.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state-supported senior institutions into the university. Thus The University of North Carolina now comprises sixteen institutions.

ACADEMIC STANDING

The University of North Carolina at Wilmington is accredited by the Southern Association of Colleges and Schools and the North

Carolina Association of Colleges and Universities. It also holds membership in the Council for Advancement and Support of Education, the American Council on Education and the American Placement Council, and is on the list of schools approved by the American Chemical Society.

THE CAMPUS

The University of North Carolina at Wilmington is located in the southeastern part of the state on a 600-acre tract on State Highway 132 midway between the Cape Fear River and the Atlantic Ocean. The city of Wilmington is situated on the east bank of the Cape Fear River and is about 15 miles from Carolina Beach and 10 miles from Wrightsville Beach. From a village of 1,689 people in 1800, Wilmington has developed into a city of more than 60,000 population. Several main highways lead into the city, and it is also readily accessible by plane.

Ocean breezes and the nearness of the Gulf Stream give Wilmington a delightful year-round climate, and the area's proximity to the ocean provides unlimited recreational opportunities.

The spacious, well-landscaped campus was first occupied by the university in 1961, with three buildings in use. Today there are 17 buildings, plus athletic fields and ample parking areas. A professionally engineered master plan will guide future expansion to insure harmony between the buildings and their surroundings.

BUILDINGS

The buildings on the campus are of modified Georgian architecture. All academic buildings, as well as the cafeteria and residence hall, are completely air-conditioned.

The Edwin A. Alderman Administration Building, named in honor of a native Wilmingtonian who served as president of The University of North Carolina, The University of Virginia and Tulane University, houses administrative offices, the Department of History, classrooms and a number of faculty offices.

Hoggard Hall, the academic building named in honor of Dr. John T. Hoggard, second president of Wilmington College, contains classrooms, the Departments of Nursing, Political Science, and Sociology and Anthropology laboratories, the computing center and faculty and staff offices.

The Hinton James Student Services Building contains student lounges, an assembly room, offices for student organizations and the university bookstore. It was named for a New Hanover County resident who was the first student to enroll at The University of North Carolina.

Hanover Hall, the physical education building, provides modern facilities for the athletic activities of both men and women students, including a large playing floor with rollaway bleachers, a second athletic activity floor, offices, locker rooms and showers,

and special gymnastic equipment. It has a seating capacity of 2,000 for basketball and similar spectator events.

The Raiford G. Trask Health and Physical Education Building will provide the campus with a 6,000 seat coliseum as well as an olympic size swimming pool and a separate diving tank. Construction is scheduled for completion by the fall of 1977.

Kenan Hall, named in honor of the late Mrs. Sarah Graham Kenan of Wilmington, is occupied by the Departments of Art, English, Modern Languages, Music, and Philosophy and Religion. It contains classrooms, faculty offices, language laboratories, art and music studios, the music library, an electronic music studio, dramatic workshops and the S.R.O. Theatre.

The Chemistry-Physics Building houses the Departments of Chemistry, Mathematical Sciences, and Physics. It is equipped with classrooms, faculty and staff offices, teaching auditoriums, and modern, well-equipped laboratories for the physical sciences.

The Arnold Kimsey King Education and Psychology Building contains an auditorium with a seating capacity of 191, classrooms, faculty offices, a curriculum laboratory and a modern demonstration classroom and laboratory for occupancy by an elementary grade.

The University Cafeteria, opened in 1971, provides space for food services for both students and faculty and contains the most modern food service equipment.

The Sarah Graham Kenan Memorial Auditorium, a gift from the Sarah Graham Kenan Foundation, has a seating capacity of 1,000 persons. The auditorium is also equipped for use as a theatre and contains the offices and seminar rooms for the Department of Drama and Speech.

The Edmond R. Galloway Residence Hall, opened in 1971, provides housing for 400 students. The Belk Residence Hall, opened in June 1976, accommodates 200 students.

The Isaac Bear Business and Economics Building, completed in 1972, contains classrooms, a computer laboratory, and faculty offices for the Department of Business and Economics.

The Marine Science Building was completed in 1974. It houses the Departments of Biology and Earth Sciences and contains classrooms and laboratories.

The William Madison Randall Library, completed in January 1969, is named for the President Emeritus of Wilmington College. It has a seating capacity of more than 600 readers and space for 200,000 volumes. The library collection contains over 145,000 volumes shelved on open stacks according to the Library of

Congress classification system. Rare and unique items are housed in the Helen Hagan Rare Book Room. Some 1,400 periodicals are regularly received, and extensive back files are maintained in bound volumes or microform. Coin operated machines for copying microforms and printed materials are available.

The library is a partial depository for United States government publications, and the collection of documents now consists of approximately 80,000 items.

An audio-center with 18 listening positions and a wide variety of recordings is available for class assignments and personal enjoyment. Two seminar rooms and a conference room are available for meetings of small groups, and a 70-seat auditorium is equipped for all types of audio-visual use. Lockers are provided for students doing honors work.

A librarian trained in reference service is available to provide information and reader guidance services to students and faculty.

HERBERT BLUETHENTHAL MEMORIAL WILDFLOWER PRESERVE

The Herbert Bluethenthal Memorial Wildflower Preserve is a tract of approximately 10 acres set aside on the campus by the University's Board of Trustees in response to a donation by Mrs. Herbert Bluethenthal of Wilmington. The Preserve includes a wide variety of plant communities, marked trails to follow, and labeled plants to observe. It is dedicated to the preservation of the rich and varied flora of southeastern North Carolina and has been designed to provide a place of contentment and pleasure for those who enjoy and appreciate our native plants.

ADMISSIONS

ADMISSIONS

The University of North Carolina at Wilmington seeks to admit students with the intellectual ability to perform in the collegiate community. However, the student must have the motivation and the determination to avail himself of the learning experiences that will be beneficial to him if he is to attain both academic and personal enrichment. As a state-supported institution, the university is aware of its obligation to provide an educational opportunity to all qualified applicants who will benefit from the program of study offered on the Wilmington campus.

Applicants may enter the university at the beginning of the fall and spring semesters and at the beginning of each summer term. Applications for fall semester should be filed by August 1; applications for spring semester should be filed by December 15. Students desiring to enroll in summer school should make application previous to the summer session registration period. The academic qualifications of each applicant are carefully reviewed by the admissions personnel in a conscientious effort to admit those students who have the potential for further achievement.

ADMISSIONS-FRESHMEN

The requirements for admission to The University of North Carolina at Wilmington are:

(1) Graduation from an accredited high school
(2) A satisfactory score on the Scholastic Aptitude Test (SAT)
(3) An overall "C" average on all work attempted in grades 9-12
(4) The following specific high school units:
    4 units in English
    *2 units in one foreign language
    2 units in Mathematics (Algebra I and Geometry or Algebra II)
    2 units in Social Studies
    1 unit in Science

*Students who meet all minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and 102 before they are graduated with the baccalaureate degree.

APPLICATION PROCEDURE FOR FRESHMEN

Students wishing to enroll are required to comply with the following procedures:

1. Submit a completed application form. A $10.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Have the secondary school officials submit an official transcript of secondary school work. The transcript must be sent directly to the Office of Admissions, The University of North Carolina at Wilmington, P.O. Box 3725, Wilmington, North Carolina 28401.

3. Take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board. Applicants must request that scores on this test be sent to the Office of Admissions. Because of deadlines for filing application to take the College Board tests, arrangements must be made well in advance of the testing date so that the application may be received in Princeton or Berkeley by the closing date. Applicants are accepted on either junior or senior year SAT scores. For information about the SAT, the applicant should contact the secondary school guidance counselor or write or call College Board ATP, P.O. Box 592, Princeton, New Jersey 08540; (609) 921-9023. Students who live in the Western, Southwestern or Pacific Coast states should write or call College Board ATP, Box 1025, Berkeley, California 94701; (415) 849-0950.

It is important that high school credits and test scores reach the university early so that all correspondence relating to the application may be completed before the opening of the semester in which the student expects to register.

ADMISSIONS-TRANSFER

A student wishing to transfer to The University of North Carolina at Wilmington from another institution must meet the following requirements for admission: (1) He must be eligible to return to the institution last attended and (2) He must have attained at least a "C" average (4.0 system) based on all courses attempted at all institutions attended. Transfer students with less than 24 semester hours of transferable credit must also meet the freshman entrance requirements.

A student seeking admission by transfer of credits is required to have all transcripts of previous college or university records forwarded to the Director of Admissions by the Registrar at each institution he has attended. Even though no transfer of credit may

be involved, all previous college or university experience must be certified by transcripts or records of attendance.

Students wishing to transfer are required to comply with the following procedures:

1. Submit a completed application form. A $10.00 (NON-REFUNDABLE) application fee must accompany the application.
2. Submit a completed University Questionnaire for transfer students. This Questionnaire is included in the transfer admissions packet.
3. Have an official transcript from each college or university attended, including summer school, submitted. It is the applicant's responsibility to request that each institution attended send an official transcript directly to the Office of Admissions. Transfer applicants who have completed fewer than 24 semester hours of transferable credit must also submit an official secondary school transcript and an official copy of the scores of the Scholastic Aptitude Test of the College Entrance Examination Board.

ADMISSIONS-ASSOCIATE DEGREE PROGRAM IN NURSING

Admission to the Associate Degree Program in Nursing requires, in addition to acceptance to the University, an interview with and approval by the Department of Nursing.

NOTIFICATION OF ACCEPTANCE

Applicants are notified of action taken on their application as soon as possible. However, final action cannot be taken until all required information is in the Office of Admissions.

ADMISSIONS-FORMER STUDENTS

Former UNC-W students desiring to return to the university should apply to the Director of Admissions for readmission prior to August 1 for the fall semester or December 15 for the spring semester. A former student who has attended a college or university since his last enrollment at UNC-W is required to submit official transcripts of credit from such institutions before he can be considered for readmission.

THE THREE-YEAR RULE

Any UNC-Wilmington student who has been out of school for at least three years and has not attended any other institution since leaving UNC-W is eligible to reenter under the "three-year rule."

The student who elects to have the "three-year rule" applied will have neither a quality point deficit to overcome, nor hours of credit for those courses in which "D" grades were attained. Only courses in which a grade of "C" or better was earned will be counted toward graduation. Nevertheless, this option will not alter the student's original academic record. The student's quality point average will begin at the time he resumes his studies. He will be required to maintain a "C" average on a semester basis to be eligible to continue. Degree requirements will be the requirements in effect at the time his education is resumed.

The student must exercise his option concerning the three-year rule at the time he applies for admission to the University. Once the student has exercised his option, he may not later reverse it.

Any former student of an accredited college or university who has not attended school for at least three years may apply to the Admissions and Academic Standards Committee for admission under the three-year rule.

APPLICATION DATES

All students applying for admission or readission to the University of North Carolina at Wilmington must file their Application for Admission or their Reenrollment Form by August 1 if enrolling for the fall semester and by December 15 if enrolling for the spring semester.

ADMISSIONS-SUMMER VISITORS

During the summer session, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. Applicants from other colleges or universities should seek prior approval from their dean to take courses at The University of North Carolina at Wilmington. The university assumes no responsiblity in determining a student's course selection when such credits are to be transferred elsewhere. Enrollment by permission from another institution in no way obligates the university to continue one's enrollment at The University of North Carolina at Wilmington after the expiration of the permission period. Summer visitor applications and schedules are available in April of each year.

ADMISSIONS—SPECIAL HIGH SCHOOL STUDENTS

Selected high school seniors who wish to pursue an academic program on the collegiate level while attending high school may

enroll at The University of North Carolina at Wilmington if they meet the qualifications for participation in this program. Because of distance this program is available primarily to students in the Wilmington area. Special applications for admission are available in the office of the high school counselor. Students may enter this program at the beginning of the fall, spring or summer term.

ADMISSIONS-FOREIGN STUDENTS

The university welcomes admission inquiries from foreign students. The prospective student must present evidence that he is academically qualified for admission and present satisfactory test results on the Test of English as a Foreign Language (TOEFL) to indicate his English proficiency.

NONDISCRIMINATION POLICY

UNC-W is dedicated to equality of opportunity within its community. Accordingly, UNC-W does not practice or condone discrimination in any form against students, employees, or applicants on the ground of race, color, national origin, religion, sex, age, handicap or veteran status. UNC-W commits itself to positive action to secure equal opportunity regardless of those characteristics. UNC-W is covered by and supports the protection afforded by Title VI and VII of the Civil Rights Act and Title IX of the Education Amendment of 1972 Executive Order 11246 and the Vietnam Era Veteran's Readjustment Assistance Act of 1972, and the Rehabilitation Act of 1973. For information concerning these provisions, contact the appropriate compliance officer.

SAFETY AND HEALTH PROGRAM

UNC-W's safety program complies with the State Occupational Safety and Health Act of 1973.

Any student who supplies false or misleading information or who conceals pertinent facts in order to enroll in The University of North Carolina at Wilmington will be subject to immediate dismissal from the university.

EXPENSES

EXPENSES

TUITION AND FEES

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

The Board of Trustees of the university reserves the right to change the charges for tuition, fees and the room and board rate at any time without prior notice.

Charges Per Semester:

	In-State Students	Out-of-State Students*
Tuition	$110.50	$ 950.00
Fees	105.50	105.50
Total	$216.00	$1055.50
Other Fees:		
Application Fee (to accompany application, nonrefundable)		$10.00
Late Registration Fee (payable after scheduled dates)		7.50
Transcript Fee (after the first)		1.00
Private Music Fee: one half-hour per week		37.50
two half-hours per week		67.50
Graduation Fee		15.00

Students scheduling fewer than ten semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students
1	$ 38.00	$121.00
2	50.00	216.00
3	62.00	311.00
4	74.00	406.00
5	163.50	578.50
6	175.50	673.50
7	187.50	768.50
8	201.50	865.50
9	213.50	960.50

The privileges of students taking fewer than five hours per semester will be restricted to class attendance and use of the library.

* See information on residency at the end of this section.

ROOM AND BOARD

Two plans are available for room and board, one providing meals five days per week and the other providing meals seven days per week. The rates per semester are:

Room and Board: 5 days—15 meals $640.00

Room and Board: 7 days—21 meals $665.00

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

Those interested in obtaining information should contact:

Office of Student Affairs
The University of North Carolina at Wilmington
Post Office Box 3725
Wilmington, North Carolina 28401

A $50 deposit must accompany the housing application.

SUMMER SESSION

Summer session tuition, fees, refund policy, and room and board rates will be announced in the summer session bulletin.

REFUNDS

A student who officially withdraws from the university on or before the last day of the registration period will receive a refund of the amount paid less a registration fee of $7.50.

After the registration period the student will be charged 1/10 of the semester charges for each week in attendance plus a registration fee of $7.50. No refund will be made after the end of the ninth week.

Room and board agreements are effective for the full academic year. Agreements made subsequent to the beginning of the Fall Semester remain in effect until the close of the Spring Semester. Room and board deposit and charges will not be refunded except as provided for below:

a. Agreements may be cancelled *without* forfeiture of deposit before July 1. Written notice of cancellation must be furnished the Vice Chancellor for Student Affairs.

b. Agreements may be cancelled *with* forfeiture of deposit between July 1 and the date on which the dormitory opens for Fall Semester. Deposit and room rent for the Fall Semester will not be refunded after that date.

c. Agreements may be cancelled before the date on which the dormitory opens for Spring Semester. Deposit and room rent for the Spring Semester will not be refunded after that date.

d. Agreements entered into for the Spring Semester only may be cancelled without forteiture of deposit before December 1 and with forfeiture of deposit between December 1 and the date on which the dormitory opens for Spring Semester. Written notice of cancellation must be furnished the Vice Chancellor for Student Affairs.

e. A pro-rata refund of dining charges will be made to students who officially withdraw from the university.

No degree, diploma, transcript of credits, or grades will be furnished a student until all financial obligations to the university, other than student loans, have been paid. All previously incurred expenses and accounts at the university must be paid in full before a student may re-enter at the beginning of any semester.

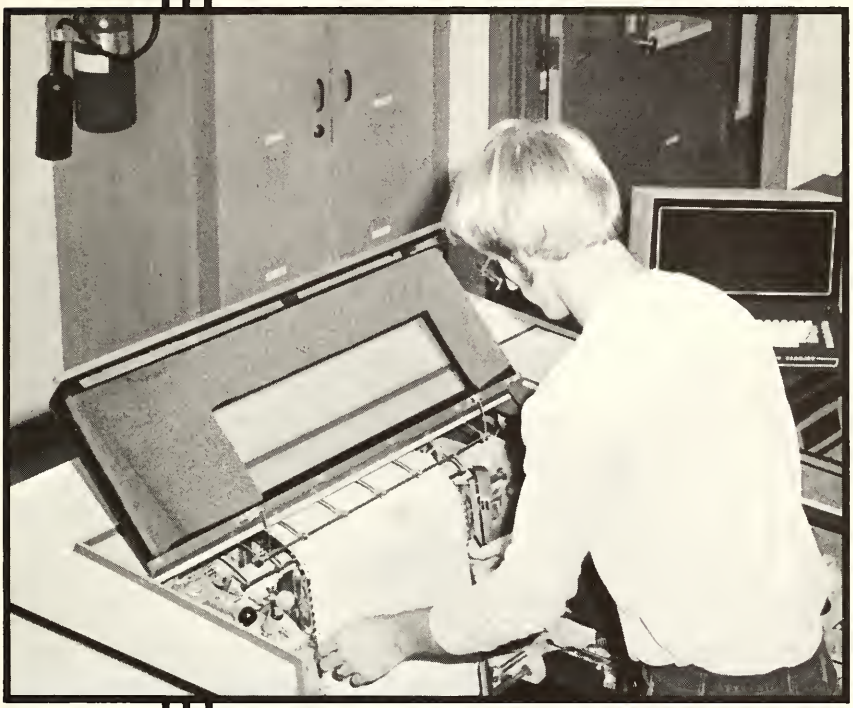
RESIDENCY STATUS FOR TUITION PAYMENT

Residency status for tuition purposes is defined in the North Carolina General Statutes as follows:

> To qualify for in-state tuition a legal resident must have maintained his domicile in North Carolina for at least the 12 months immediately prior to his classification as a resident for tuition purposes. In order to be eligible for such classification, the individual must establish that his or her presence in the State during such twelve-month period was for purposes of maintaining a bona fide domicile rather than for purposes of mere temporary residence incident to enrollment in an institution of higher education; further, (1) if the parents (or court-appointed legal guardian) of the individual seeking resident classification are (is) bona fide domiciliaries of this State, this fact shall be prima facie evidence of domiciliary status of the individual applicant and (2) if such parents or guardian are not bona fide domiciliaries of this State, this fact shall be prima facie evidence on non-domiciliary status of the individual. (G.S. 116-143 .1(b)

The initial classification of students as in-state or out-of-state residents for tuition purposes is made by the Admissions Office or the Office of Continuing Education, whichever is applicable to the student's situation. Appeals for in-state status may be made to the campus appeals body, Out-of-State Tuition Appeals Com-

mittee. University regulations governing residential classification of students are set forth in detail in "A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available in the Admissions Office and in the Student Affairs Office for inspection upon request.



FINANCIAL AID

FINANCIAL AID

PHILOSOPHY AND PURPOSE

The primary purpose of financial aid at the University of North Carolina at Wilmington is to provide financial assistance to students who, without such aid, would be unable to attend college. UNC-W makes financial aid awards on the assumption that the student's family will make a maximum effort to assist the student with college expenses. The family is expected to contribute according to its income and assets, and the student is expected to contribute from savings and summer employment. It is the responsibility of the Financial Aid Office to help the student fulfill any remaining financial need after the family has contributed the amount that it could reasonably be expected to contribute. UNC-W feels that no student should be denied a college education because of lack of financial resources, and the major objective of the Financial Aid Office is the achievement of this goal.

TYPES OF AID AVAILABLE

There are three major classifications of student financial aid: Grants and scholarships, work, and loans. A grant is a gift from the government, the institution, or an individual, but a loan must be repaid. The following is a listing of the major financial aid programs available to students attending UNC-W.

GRANT AND SCHOLARSHIP PROGRAMS

The Basic Education Opportunity Grant Program provides direct grants from the government to the undergraduate student for educational expenses. The student must apply directly to the Department of Health, Education, and Welfare for a grant. If HEW certifies that a student is to receive a grant, it is the responsibility of the institution that the student is attending to make certain that payment is made.

At UNC-W, Basic Grants range in value from $200 to $1400. A student's award varies depending upon his academic classification as half-time or full-time.

To apply for a Basic Grant, a student must be enrolled in an undergraduate course of study, and not have previously received a Bachelor's degree from any institution, and must be a U.S. citizen or in the U.S. for other than a temporary purpose and have intentions to become a U.S. citizen or permanent resident of the Trust Territories of the Pacific Islands.

All financial aid applicants are required to file a Basic Grant application.

The Supplemental Educational Opportunity Grant Program provides aid to students who have an exceptional financial need. To receive an SEOG a student must apply to the Financial Aid Office at UNC-W.

At UNC-W, Supplemental Grants range in value from $200 to $1,000 per year.

To be eligible for a grant a student must be enrolled for at least 12 hours, and must be a citizen or resident of the U. S.

The N.C. Incentive Grant Program provides grants to students who have substantial financial need. Applicants must be North Carolina residents taking at least 12 hours toward an undergraduate degree, diploma, or certificate. Grants range from $200 to $1500. Students apply directly to College Foundation, Inc.
In addition to filing an application, students are also required to have a copy of their financial statement (Financial Aid Form or Parents Confidential Statement) sent to College Foundation.

The Law Enforcement Education Grant Program provides assistance in the form of grants to full-time law enforcement personnel. To be eligible, an applicant must be pursuing course work which is part of a degree program related to crime, or the more general degree programs in the behavioral, managerial, or social sciences.

UNC-W tuition scholarships provide needy and worthy students with grants equal to the cost of tuition at UNC-W. To receive one of these scholarships a student must apply to the Financial Aid Office.

The Athletic Department, the Music Department, Speech and Drama Department, *Atlantis*, the *Fledgling*, and the *Seahawk* also offer tuition scholarships. Inquiries should be directed to these organizations.

To be eligible a student must be enrolled for at least 12 hours and show academic or creative promise. Upperclassmen must maintain a 2.0 average in order to renew these scholarships.

Several privately funded scholarships are available through the Financial Aid Office. These include the *Eliza Collins Scholarship*, and the *Belk-Beery Scholarships, Lucille Murchison Marvin Foundation Scholarship*, the *Rotary Club of Wilmington Scholarships*, and the *Sue McCall Boone Scholarship*. All inquiries regarding these scholarships should be directed to the Financial Aid Office.

These scholarships range in value from $200 to $500 per year.

WORK PROGRAMS

The college work-study program provides funds to employ needy students on the UNC-W campus. Students are paid at an hourly rate equal to the minimum wage and may be awarded up to a maximum of 20 hours per week. Applications for Work-Study should be made to the Financial Aid Office.

To be eligible for Work-Study a student must be enrolled for at least six hours and be a citizen or resident of the U.S.

The work-assistance program provides funds to employ students on the UNC-W campus. However, there is no need factor involved in the selection of students for this program. Students interested in the program should direct inquiries to the departments in which they would prefer to work.

The Plan Assuring College Education (PACE) provides jobs near the homes of North Carolina students. It assures eligible Work-Study students of summer employment with the understanding that 80% of the earnings must be saved for college expenses.

LOAN PROGRAMS

The National Direct Student Loan Program provides needy students with long-term, low interest loans for educational expenses.

Under this program the student borrows money to finance a college education and repays the loan after graduation. Repayment begins 9 months after graduation, and the borrower may take up to 10 years to repay the loan. The interest rate of 3% does not begin accruing until the repayment period begins. All or part of the loan may be cancelled for teaching or military service. To receive a NDSL a student must apply to the Financial Aid Office.

National Direct Student Loans range from $100 to $1250 per year at UNC-W.

To be eligible for an NDSL a student must be enrolled for at least six hours, and be a citizen or resident of the U. S.

The federally insured loan program (College Foundation, Inc.) provides students from middle income families with long-term, low interest loans for post-secondary educational expenses. Under this program the student borrows from College Foundation, Inc., and repays the loan after graduation. The repayment period begins nine months after graduation, and the borrower may take up to ten years to repay the loan. The interest rate is 7% and begins accruing when the repayment period begins. Applications for Federally Insured Loans should be made directly to College Foundation, Inc.

The maximum amount that a student may borrow under the program is $2,000 per academic year.

To be eligible for this program a student must be enrolled for at least 12 hours and be a North Carolina resident.

The North Carolina prospective teachers scholarship—loan program provides assistance to prospective North Carolina teachers. The program provides a $900 per year loan, which will be cancelled if the student teaches in North Carolina public schools after graduation. The program is administered by the Department of Public Instruction, and inquiries regarding the program should be directed to them or the Financial Aid Office.

To be eligible for their program a student must be enrolled for at least 12 hours and be a North Carolina resident.

OFFICE OF VETERANS AFFAIRS

The Office of Veterans Affairs (OVA) exists to provide educational assistance to veterans and/or their dependents enrolled at The University of North Carolina at Wilmington. The OVA is concerned with the recruitment of veterans into the university and insuring that they successfully complete their educational programs. The OVA provides peer and professional counseling, remedial services, tutorial services, and community outreach services. This office also acts to coordinate existing campus services to best serve the needs of the vereran students.

In addition to these services, there is a VA Educational Benefits Representative on campus Monday and Wednesday of each week. His primary duties consist of facilitating the receipt of G.I. bill checks and serving as a direct contact between the veteran-student and the VA Regional Office in Winston-Salem. The OVA is located in Room 205 in the Alderman Building.

STUDENT AFFAIRS

STUDENT AFFAIRS

COUNSELING

Counseling psychologists provide service to students seeking assistance in achieving maximum personal growth, effective educational, vocational and social relationships and healthy personal adjustment. These services include counseling, assessment and evaluation of achievement, personality, mental aptitude and vocational interests. There is no charge for these services. Counseling Center sessions and files are confidential.

Concerns and decisions which are commonly discussed by students who come to the Counseling Center include:

(1) Choice of a major. Although some students declare a major at the beginning of their college career, others may want to discuss their initial choice of a major or the possibilities for changing majors.

(2) Choice of career. Going hand-in-hand with choices concerning a major, yet often of more specific concern are student concerns related to decision about vocational choice.

(3) Academic problems. Some students may benefit from a discussion of study habits and skills.

(4) Personal problems. Situations may arise in which a student needs greater understanding of self and/or others as this pertains to problems at home, misunderstandings with roommate, dating problems or other such interpersonal concerns.

PLACEMENT SERVICES

The university maintains placement services which coordinate and plan campus interviews with representatives seeking graduates for positions in business, industry, government, and other agencies. Seniors are urged to register with the Placement Office if they wish assistance in seeking permanent employment.

Listings of summer work and part-time employment during the academic year are available through this service. No fee is charged for registering, and there is no commission from those who obtain a position through these services.

STUDENT HOUSING

The university has residence facilities for approximately 300 men and 300 women in two modern, conveniently located dormi-

tories. All rooms are air-conditioned and furnished, and laundry facilities are available. Resident students are required to take their meals in the university cafeteria under either a five-day or a seven-day plan.

FOOD SERVICE

The university operates a modern, air-conditioned cafeteria building. Hot meals are served on the second floor and a snack area is located on the first floor. Service is on a cash basis for non-boarding students.

STUDENT HEALTH SERVICE

UNC-Wilmington provides a student Health Service Center which is located adjacent to the main lobby area of Galloway Hall. The center has the most modern medical equipment available for the treatment of minor illness or injury. The Health Service Center is open five days a week and a physician is on call at night and on weekends. THIS SERVICE IS PAID FOR BY STUDENT FEES AND IS INTENDED TO COVER ONLY MINOR ILLNESS OR INJURY.

STUDENT HEALTH INSURANCE

It is strongly recommended that students who are not covered for major medical expenses (serious injuries due to accidents or hospitalization) under their family health and accident insurance plan contact the Student Affairs Office for information relative to the student health insurance plan offered at a nominal cost through the University.

RELEASE OF "DIRECTORY INFORMATION"

The University of North Carolina at Wilmington has routinely made public certain information about its students. Some typical ways this has been done include the following: names of students who are selected by the various honorary societies, who receive scholarships, who make the Dean's List, who hold offices, or who are members of athletic teams are frequently made public. The annual commencement program publishes the names of persons who have received degrees during the year.

The Family Educational Rights and Privacy Act defines the term "directory information" to include the following categories of information: the student's name, address, telephone listing,

date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The University will make public information about each student limited to these categories in ways such as those described above. Of course, information from all these categories is not made public in every listing.

Students who do not wish to have any or all of such "directory information" made public without their prior consent must notify the Office of Admissions and Records, The University of North Carolina at Wilmington, of this fact in a signed and dated statement specifying items not to be published. This notice must be received by the Office of Admissions and Records by the end of the registration period for the semester or session of first enrollment or, after an absence, of re-enrollment and by the end of each fall registration period thereafter.

STUDENT LIFE AND ACTIVITIES

ACTIVITIES

Students at The University of North Carolina at Wilmington involve themselves in a wide range of extracurricular activities, ranging from cultural pursuits to athletic competition to publications.

ATHLETICS

The university holds memberships in the National Collegiate Athletic Association and the Association of Intercollegiate Athletics for Women.

Varsity intercollegiate teams are fielded for men in basketball, baseball, cross country, golf, soccer, and tennis. Varsity intercollegiate teams for women are fielded in basketball, cross country, softball, tennis, and volleyball. Swimming teams for both men and women are planned for the 1977-78 year.

In addition, an intramural sports program is provided for the student body. The program is based broadly on competitive and recreational activities, and participation is voluntary.

PUBLICATIONS

Students are involved in the writing and editing of several university publications, while others are published by the university for the benefit of students and alumni.

The Seahawk, the student newspaper, is published weekly. Its editorial staff is composed entirely of students.

The Fledgling, the student-produced yearbook, contains the usual features of a college annual.

The Atlantis, a literary magazine, is published by the students.

The Student Handbook is published as a guide to life at the university. It acquaints the student with the institution's rules and regulations.

The University of North Carolina at Wilmington Bulletin is issued annually. Its purpose is to provide information about the university—its programs, its progress and its function in the educational system.

FINE ARTS-LECTURE SERIES

The student Fine Arts-Lecture Committee makes programs of interest and cultural significance available to the student body and the community.

UNIVERSITY INSTRUMENTAL ENSEMBLES

The University of North Carolina at Wilmington Wind Ensemble is organized each semester to provide instrumental music experience for those students who desire it. Membership is open to any student who has had instrumental experience, with the approval of the director; and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit. Participation in either a vocal or an instrumental organization is required of all music majors.

The University Wind Ensemble and its smaller ensembles regularly provide music for university functions, civic and church groups, and radio and television.

The University Wind Ensemble presents at least two concerts a year and participates in the large, joint stage productions of the music and drama departments.

Students are also invited to participate in the *UNC-W/Community Orchestra,* which rehearses on the campus.

Faculty and Student Recitals and Special Senior Recitals are presented by the music department free of charge and are open to the public as well as to all students.

The Music Department also maintains an Electronic Music Studio.

UNIVERSITY VOCAL ENSEMBLES

The University of North Carolina at Wilmington Concert Choir is organized each semester to provide vocal musical experience for those students who desire it. Membership is open to any student in the university, with the approval of the director, and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit. All music majors are required to participate in either a vocal or an instrumental group.

The University Concert Choir and small ensemble, *The Chamber Singers*, regularly provide music for university functions, appear on radio and television, and act as ambassadors from the university at a wide spectrum of community functions.

The UNC-W Concert Choir's yearly activities have included at least two on-campus concerts and an extensive tour during the spring holidays. On occasion the choir has participated in large, joint stage productions of opera and musical comedies with the drama department.

THE UNIVERSITY THEATRE

The University Theatre is a student-oriented theatre dedicated to the continuing development of all theatre practitioners. It strives to produce a total theatrical experience to support the educational, creative, and recreational potentials of a campus-based theatre.

Two major productions are presented each semester, with student productions presented on demand. Participation is not limited to dramatic art students, but is open to all university personnel and community residents.

S.R.O. STRAW-HAT THEATRE

The S.R.O. Straw-Hat Theatre, an institution-sponsored organization, operates as the artistic and cultural outlet during the summer months.

Initiated during the summer of 1968, a summer stock company is brought to the campus to present seven productions in a seven-week period from June 21 through August 7. Try-outs for all seven shows will be held June 1 and 2 and are open to all students of UNC-W and residents within the area.

Since its inception, it has presented Broadway, classic, original and musical plays. This program exposes students of UNC-W and other branches of the consolidated university to the unique educational experience of working under summer stock and professional conditions.

DEBATE TEAM

The University Debate Team participates in a number of tournaments each year, giving students experience in research, argumentation and public speaking. The team is a member of the National Forensic Association, and topics chosen by the association are debated by collegiate teams nationally. Membership is open to all students.

ART EXHIBITIONS

Monthly exhibitions of paintings, sculpture and the graphic arts are held in the gallery-lobby of Kenan Hall. All exhibitions are open without charge to the public, and the exhibitions occasionally feature student art.

ORGANIZATIONS

A variety of social, academic, and service organizations serve to enhance student life at The University of North Carolina at Wilmington. National fraternities are established on the campus to recognize students for their leadership and service activities. Various departments in the university have locally and nationally organized groups to stimulate interest in specific areas and to develop professional attitudes. These groups maintain high scholastic standards.

STUDENT GOVERNMENT ASSOCIATION

The core of student life at the university is the Student Government Association. Officers are elected by the student body, and other representatives by classes within the student body.

The association is a democratic organization, permitting expression of student opinion, working for the best interests of the university and upholding a high standard of morals and conduct.

The Student Government Association charters all recognized clubs within the institution and supervises their organization and objectives. It is also responsible for the disbursement of approximately half of the student activity fee. This money supports the Student Government Association in its objectives and campus activities. The association is a member of the North Carolina Student Legislature, the National Entertainment Conference, and the Union of Student Body Presidents in North Carolina.

THE SOCRATIC SOCIETY

The Socratic Society is an honorary scholastic society formed in 1968 to give special recognition to seniors of outstanding academic accomplishment. It is sponsored by faculty members who belong to the scholastic honorary fraternity Phi Beta Kappa.

Graduating seniors who have completed a minimum of 60 semester hours in the humanities and have attained an overall quality point average of 3.5 may be recommended by the faculty of the area in which they are concentrating for election to the society.

STUDENT UNION PROGRAM BOARD

The Student Union Program Board is a group of students who concentrate on bringing low-cost, innovative programming to

campus. A Super Sunday and recreational tournaments are examples of activities it has sponsored. Membership is open to any interested student.

FRATERNITIES

Social Fraternities:
Delta Upsilon
Pi Kappa Phi
Tau Kappa Epsilon
Service Groups:
Alpha Phi Omega
Professional Fraternities:
Pi Mu Epsilon
Sigma Alpha Beta
Sigma Pi Sigma

CLUBS AND OTHER ORGANIZATIONS

American Hapkido Karate Club
B. Frank Hall Philosophy Club
Biology Club
Campus Christian Fellowship
Campus Computing Club
Cape Fear Rugby Football Club
Chemistry Club
Coastal University Divers' Association
Earth Science Club
English Club
Eugene E. Williams Club de Espanol
Math Club
Physical Education Majors' Club
Recreation Majors' Club
The Semper Fidelis Society (Marines)
Society of Enterprising Xenophiles
Society of Physics Students
Student North Carolina Association of Educators
Student Nurse Association of North Carolina
UNC-W Astronomy Club
UNC-W Business Club
UNC-W Engineers Club
UNC-W Jujitsu Club
UNC-W Motoburyu Karate Club
UNC-W Rowing Club

UNC-W Varsity Cheerleaders
Wantu Wazuri

WHO'S WHO AMONG STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES

The University of North Carolina at Wilmington participates in this national organization which lists in its annual directory outstanding campus leaders. Selection of the candidates is made by a nominating committee composed of faculty, administration and students.

HOGGARD MEDAL FOR ACHIEVEMENT

A medal, presented through the generosity of the late Dr. John T. Hoggard, is awarded annually to the graduating senior who, in the opinion of the faculty, has shown the most improvement during his years at the university.

ALUMNI ASSOCIATION SCHOLASTIC ACHIEVEMENT AWARD

The Alumni Association of the University of North Carolina at Wilmington each year at commencement presents an award to the senior who has attained the highest academic average in his graduating class.

UNIVERSITY POLICIES

UNIVERSITY POLICIES

The filing of an *application for admission* shall be construed as both an evidence and a pledge that the applicant accepts the standards and regulations of The University of North Carolina at Wilmington and agrees to abide by them. Each student, by the act of registering, obligates himself to obey all rules and regulations of the university as stated in the student handbook, the university catalog and other university publications. The university reserves the right to ask for the withdrawal of any student who refuses to adhere to the standards of the institution.

STATEMENT OF UNIVERSITY POLICIES, PROCEDURES, AND DISCIPLINARY ACTIONS IN CASES OF DISRUPTION OF EDUCATIONAL PROCESS

ADOPTED BY THE BOARD OF TRUSTEES
OCTOBER 27, 1970

CHAPTER V OF *CODE PROVISIONS GOVERNING THE UNIVERSITY OF NORTH CAROLINA, BYLAWS OF THE BOARD OF TRUSTEES, AND DUTIES OF THE UNIVERSITY OFFICERS.*

Section 5-1. Policies Relating to Disruptive Conduct

The University of North Carolina has long honored the right of free discussion and expression, peaceful picketing and demonstrations, the right to petition and peaceably to assemble. That these rights are a part of the fabric of this institution is not questioned. They must remain secure. It is equally clear, however, that in a community of learning willful disruption of the educational process, destruction of property, and interference with the rights of other members of the community cannot be tolerated. Accordingly, it shall be the policy of the University to deal with any such disruption, destruction or interference promptly and effectively, but also fairly and impartially without regard to race, religion, sex or political beliefs.

Section 5-2. Definition of Disruptive Conduct

(a) Any faculty member (the term "faculty member", wherever used in this Chapter V, shall include regular faculty members, full-time instructors, lecturers, and all other persons exempt from the North Carolina State Personnel System (Chapter 126 of

the General Statutes as amended) who receive compensation for teaching, or other instructional functions, or research at the University), any graduate student engaged in the instructional program, or any student who, with the intent to obstruct or disrupt any normal operation or function of the University or any of its component institutions, engages, or incites others to engage, in individual or collective conduct which destroys or significantly damages any University property, or which impairs or threatens impairment of the physical well-being of any member of the University community, or which, because of its violent, forceful, threatening or intimidating nature or because it restrains freedom of lawful movement, otherwise prevents any member of the University community from conducting his normal activities within the University, shall be subject to prompt and appropriate disciplinary action, which may include suspension, expulsion, discharge or dismissal from the University.

The following, while not intended to be exclusive, illustrate the offenses encompassed herein, when done for the purpose of obstructing or disrupting any normal operation or function of the University or any of its component institutions: (1) occupation of any University building or part thereof with intent to deprive others of its normal use; (2) blocking the entrance or exit of any University building or corridor or room therein with intent to deprive others of lawful access to or from, or use of, said building or corridor or room; (3) setting fire to or by any other means destroying or substantially damaging any University building or property, or the property of others on University premises; (4) any possession or display of, or attempt or threat to use, for any unlawful purpose, any weapon, dangerous instrument, explosive, or inflammable material in any University building or on any University campus; (5) prevention of, or attempt to prevent by physical act, the attending, convening, continuation or orderly conduct of any University class or activity or of any lawful meeting or assembly in any University building or on any University campus; and (6) blocking normal pedestrian or vehicular traffic on or into any University campus.

(b) Any person engaged in the instructional program who fails or refuses to carry out validly assigned duties, with the intent to obstruct or disrupt any normal operation or function of the University or any of its component institutions, shall be subject to prompt and appropriate disciplinary action under this Chapter V if (but only if) his status is such that he is not subject to the provisions of Section 4-3 of Chapter IV.

Section 5-3. Responsibilities of the Chancellor

(a) When the Chancellor has cause to believe that any of the provisions of this Chapter V have been violated, he shall forthwith investigate or cause to be investigated the occurrence, and upon identification of the parties involved shall promptly determine whether any charge is to be made with respect thereto.

(b) If he decides that a charge is to be made, he shall, within thirty (30) days after he has information as to the identity of the alleged perpetrator of the offense but in no event more than twelve (12) months after the occurrence of the alleged offense, (i) refer the case to the appropriate existing University judicial body, or (ii) refer the matter to a Hearing Committee drawn from a previously selected Hearings Panel which, under this option, is required to implement action for violation of Section 5-2 (a) or (b) of this Chapter. If the case is referred to an existing University judicial body under (i) above, the procedural rules of that body shall be followed, and subsections (c) through (f) below shall not be applicable. If the matter is referred to a Hearing Committee under (ii) above, the procedural rules prescribed in subsection (c) through (f) shall be followed.

(c) The accused shall be given written notice by personal service or registered mail, return receipt requested, stating:

(1) The specific violations of this Chapter V with which the accused is charged.

(2) The designated time and place of the hearing on the charge by the Hearing Committee, which time shall not be earlier than seven (7) nor later than ten (10) days following receipt of the notice.

(3) That the accused shall be entitled to the presumption of innocence until found guilty, the right to retain counsel, the right to present the testimony of witness and other evidence, the right to cross-examine all witnesses against him, the right to examine all documents and demonstrative evidence adverse to him, and the right to a transcript of the proceedings of the hearing.

(d) The Hearing Committee shall determine the guilt or innocence of the accused. If the person charged is found guilty, the Hearing Committee shall recommend to the Chancellor such discipline as said body determines to be appropriate. After considering such recommendation the Chancellor shall prescribe such discipline as he deems proper. In any event, whether the person is found guilty or not guilty, a written report shall be made by the Chancellor to the President within ten (10) days.

(e) Any person found guilty shall have ten (10) days after notice of such finding in which to appeal to the President of the University. Such an appeal if taken shall be upon the grounds set forth in Section 5-5.

(f) Any accused person who, without good cause, shall fail to appear at the time and place fixed for the hearing of his case by the Hearing Committee shall be suspended indefinitely or discharged from University employment.

(g) The Chancellor, unless so ordered or otherwise prevented by court, shall not be precluded from carrying out his duties under this Chapter V by reason of any pending action in any State or Federal court. Should a delay occur in prosecuting the charge against the accused because the accused or witnesses that may be necessary to a determination of the charge are involved in State or Federal court actions, the time limitations set forth in this Section 5-3 shall not apply.

(h) Conviction in any State or Federal court shall not preclude the University or any of its officers from exercising disciplinary action in any offense referred to in this Chapter V.

(i) Nothing contained in this Chapter V shall preclude the President or the Chancellor from taking any other steps, including injunctive relief or other legal action, which he may deem advisable to protect the best interests of the University.

Section 5-4. Aggravated Acts or Threatened Repetition of Acts

(a) The Chancellor of each of the component institutions of the University shall appoint an Emergency Consultative Panel which shall be composed of not less than three (3) nor more than five (5) faculty members and not less than three (3) nor more than five (5) students who shall be available to advise with the Chancellor in any emergency. No member of such Panel shall serve for more than one (1) year unless he be reappointed by the Chancellor. The Chancellor may make appointments, either temporary or for a full year, to fill any vacancies which may exist on the Panel.

(b) If, in the judgment of the Chancellor, there is clear and convincing evidence that a person has committed any of the acts prohibited under this Chapter V which, because of the aggravated character or probable repetition of such act or acts, necessitates immediate action to protect the University from substantial interference with any of its orderly operations or functions, or to prevent threats to or acts which endanger life or property, the Chancellor, with the concurrence as hereinafter provided of the Emer-

gency Consultative Panel established pursuant to (a) above, may forthwith suspend such person from the University and bar him from the University campus; provided, however, that in the event of such suspension the person suspended shall be given written notice of the reason for his suspension, either personally or by registered mail addressed to his last known addresses, and shall be afforded a prompt hearing, which, if requested, shall be commenced within ten (10) days of the suspension. Except for purposes of attending personally any hearings conducted under this Chapter V, the bar against the appearance of the accused on the University campus shall remain in effect until final judgment has been rendered in his case and all appellant proceedings have been concluded, unless such restriction is earlier lifted by written notice from the Chancellor.

(c) A quorum of the Emergency Consultative Panel provided for in (a) above shall consist of not less than four (4) of its members, and the required concurrence shall have been obtained if a majority of such quorum shall indicate their concurrence. The Chancellor shall meet personally with members of such Panel at the time he seeks concurrence, if it is feasible to do so. However, if the circumstances are such that the Chancellor deems it not to be feasible to personally assemble such members, then he may communicate with them or the required number of them individually by telephone or by such other means as he may choose to employ, in which event he may proceed as provided in (b) above after the required majority of such members have communicated their concurrence to him.

(d) In the Chancellor's absence or inability to act, the President may exercise the powers of the Chancellor specified in this Section 5-4 in the same manner and to the same extent as could the Chancellor but for such absence or inability to act.

Section 5-5. Right of Appeal

Any person found guilty of violating the provisions of this Chapter V by the Hearing Committee referred to in Section 5-3 shall have the right to appeal the finding and the discipline imposed upon him to the President of the University. Any such appeal shall be in writing, shall be based solely upon the record, and shall be limited to one or more of the following grounds:

(1) That the finding is not supported by substantial evidence;

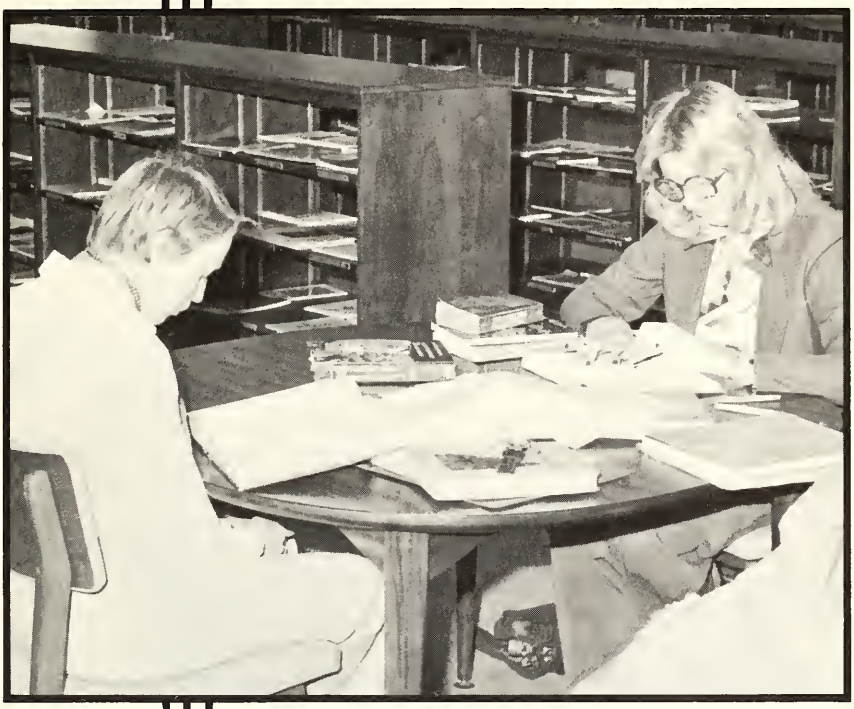
(2) That a fair hearing was not accorded the accused; or

(3) That the discipline imposed was excessive or inappropriate. It shall be the responsibility of the President to make

prompt disposition of all such appeals, and his decision shall be rendered within thirty (30) days after receipt of the complete record on appeal.

Section 5-6. No Amnesty

No administrative official, faculty member, or student of the University shall have authority to grant amnesty or to make any promise as to prosecution or non-prosecution in any court, State or Federal, or before any student, faculty, administrative, or Trustee committee to any person charged with or suspected of violating Section 5-2 (a) or (b) of these Bylaws.



ACADEMIC REGULATIONS

ACADEMIC REGULATIONS AND PROCEDURES

ORIENTATION

All new students are required to attend an orientation program prior to the beginning of fall and spring semesters. Its purpose is to acquaint the student with opportunities and services at the university and to provide information needed for registration. Students are notified by mail of the time to report for the activities involved. Each freshman and transfer student is assigned to the department of his major interest for advising purposes.

REGISTRATION

Registration is limited to the time period specified in the university calendar of events. Classes may not be added after the last day of registration. Students may take 12 to 18 hours without restriction. Students who have a cumulative quality point average of 3.5 may be allowed, with special permission of the Academic Dean, to carry a maximum of 21 semester hours.

PREREGISTRATION

Preregistration for those students currently enrolled is held each semester. Students who complete preregistration and pay fees by the designated date are registered except in the event that they are declared academically ineligible at the end of the preceding semester.

TRANSFER OF CREDIT

Students transfering from a two-year institution will receive up to 62 semester hours of academic credit from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will be included in this total.

Students transferring from a four-year institution will receive up to a maximum of 92 semester hours from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will also be included in this total.

A maximum of 15 semester hours earned through correspondence may be applied toward graduation. Credit earned in another institution with a grade of "C" or better is accepted by the university if the work transferred is comparable to offerings of The

University of North Carolina at Wilmington. All grades earned at another institution are entered on the student's record exactly as earned. However, quality points earned at other institutions are not transferable and are not used in computing grade point averages except in the case of students applying to enter the teacher education program and of seniors graduating with honors and/or distinction.

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the Advanced Placement Program of the College Entrance Examination Board. A freshman who scores a grade 5, 4, or 3 on the final examination in any field will receive appropriate college credit and advanced placement in that field. Students taking Advanced Placement Tests should have the test booklets and score reports sent to the Office of Admissions for evaluation concerning placement and credit. Individual departments will determine the specific courses for which credit will be given.

Students who are talented and well-prepared, but who have not participated in the Advanced Placement Program in high school, may apply to participating departments for the Advanced Placement Test or the College-Level Examination Program. Every department for which such tests are available will offer them upon request to any student during two (2) scheduled testing periods each year.

Students who have been exempted with credit given at an accredited college or university may be exempted with credit given at The University of North Carolina at Wilmington on an individual basis, as determined by the appropriate department chairman. Students who have been exempted without credit will not be given exemption or credit, but may elect to take one of the above examinations for possible exemption with credit. Exemptions may be granted on an individual basis by the Vice Chancellor for Academic Affairs upon recommendation of the appropriate department chairman in those cases in which a student has demonstrated his knowledge of a particular field by subsequent course work.

ACADEMIC HONOR CODE

The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore this institution's

stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the university community are encouraged to report occurrences of dishonesty, each individual is principally responsible for his own honesty.

Academic dishonesty takes many forms, from blatant acts of cheating, stealing, or similar misdeeds to the more subtle forms of plagiarism, all of which are totally out of place in an institution of higher learning. To enforce the policy of academic integrity, to endure justice, and to protect individual rights, a two court system is employed. Complete details may be found in *Insight*, the student handbook, and in the Faculty Handbook.

GRADES AND REPORTS

The University of North Carolina at Wilmington uses the quality point system and semester hour credit for calculating student achievement. Grade symbols used are A-excellent, B-good, C-average, D-passing, F-failure, I-incomplete, WP-withdrawal passing, WF-withdrawal failing.

Quality points are assigned as follows: 4 for a grade of "A"; 3 for a grade of "B"; 2 for a grade of "C"; 1 for a grade of "D." No quality points are given for a grade of "I," "F," "WP" or "WF." The quality point ratio is determined by dividing the accumulated number of quality points earned by the accumulated number of semester hours attempted. Hours attempted for which a grade of "I," "F" or "WF" has been assigned must be included in this calculation.

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed within one calendar year from the end of the semester in which the incomplete was given; otherwise, the "I" becomes an "F."

Grade reports are mailed to the student at the end of each semester.

Dean's List

At the close of each semester, regular students who are carrying a full load of 12 semester hours will be included in the Dean's List providing they have no grade lower than a "C" and providing the quality point average of all their grades for that semester is 3.0 or better.

Withdrawal

A student may withdraw from the university or from any course during the period of registration as stated in the catalogue without having a grade entered on his record.

During the semester, forms requesting a WP or WF must be filed in the Office of the Registrar on or before the dates specified in the university calendar. A grade of WP will not affect the average; a grade of WF counts as hours attempted and will affect the average. During the last five weeks of the semester, a student who withdraws from the university or from individual courses will receive a grade of "F."

Any student who finds it necessary to withdraw from the university must give written notice of his intention to withdraw to the Office of the Vice Chancellor for Student Affairs. A student who fails to give written notice of his intention to withdraw will receive a grade of "F" in all courses.

Auditing

The auditing of courses without credit is permitted by special permission of the registrar and of the instructor involved. Individuals not regularly enrolled as students in the university who wish to audit courses will be classified as special students and will be required to pay regular tuition and fees. University students in regular status will be permitted to audit courses and must pay the same tuition and fees as required for credit courses.

Repeating of Courses

A student who wishes to register for a course he has already taken and received credit for is required to have the approval of his major advisor, the department chairman, and the Academic Dean. These forms, which are available in the Registrar's Office, must be filed prior to registration for the course.

Off-Campus Courses

Students who enroll in off-campus courses (extension, correspondence, or summer school) and wish to apply credit in these courses toward a degree at The University of North Carolina at Wilmington must obtain written approval of the major department and the Academic Dean before registering for the course. This permission must be filed in the Registrar's Office on forms supplied by that office.

GRADE APPEAL PROCEDURE

Any student who protests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedures outlined below. Such appeal must be made not later than the last day of registration for the next succeeding regular semester.

1. The student shall present the appeal in writing to the chairman of the department within which the protested grade was awarded. By conferring with the student and the instructor, the chairman will seek resolution by mutual agreement.
2. Failing such resolution, the department chairman will transmit the written appeal to the Academic Dean.
3. The Academic Dean will convene the Grade Appeals Committee. The Grade Appeals Committee will consist of the Academic Dean as chairman, the Vice Chancellor for Academic Affairs Advisory Committee, and one additional member appointed by the Academic Dean. In the event a member of the Grade Appeals Committee happens to be the chairman of the department concerned or the faculty member whose grade is being appealed, such member must excuse himself from the appeal process.
4. Final decision will be made by the Grade Appeals Committee. If a decision is made to affirm the original grade, the Academic Dean will notify in writing the faculty member, the student, and the department chairman. If a decision is made to change the grade, the Academic Dean will notify in writing the faculty member, the student, the department chairman, and the Director of Admissions and Records.

CLASS ATTENDANCE

Students are expected to be present at all regular class meetings and examinations for the courses in which they are registered. When a student is absent from classes to the extent that his success in the course is jeopardized, the instructor will inform in writing both the student and the appropriate dean. The number of absences allowed for a course will be determined by the individual instructor. It is the responsibility of the instructor, during the first week of class, to inform the students of his policies concerning class attendance and grading.

FINAL EXAMINATION POLICY

University policy requires the scheduling of final examinations. Under this policy, the final examination schedule provides a three-hour period for each examination and allows a maximum of three examinations per day. The length of the final examination, up to a maximum of three hours, is at the descretion of the instructor.

A final examination schedule is announced at least four weeks before the beginning of the final examination period. Courses offered during the day have final examinations during the day (two per day). Night courses have final examinations at night (one per night).

A student who is scheduled to take three final examinations in one calendar day may have one rescheduled by notifying the three instructors and the Vice Chancellor for Academic Affairs of his desire at least two weeks before the beginning of the final examination period. It will be the responsibility of the three instructors, working with the student, to reschedule one of the examinations and to so inform the student and the Vice Chancellor for Academic Affairs at least one week before the beginning of the final examination period.

Rescheduling of a final examination for an entire class may be done only with the approval of the Vice Chancellor for Academic Affairs.

CLASSIFICATION OF STUDENTS

Students are classified as freshmen, sophomores, juniors, and seniors. Semester hours passed are used to determine these classifications. In order to graduate in 8 semesters, a student must average 15 to 16 hours per semester. The required number of hours passed for each classification is as follows:

Less than 26 semester hours credit—Freshman
From 27-58 semester hours credit—Sophomore
From 59-88 semester hours credit—Junior
More than 89 semester hours credit—Senior

Retention, Dismissal and Readmission

Scholarship is both encouraged and required at The University of North Carolina at Wilmington. In order to remain at the university, all students must meet the quality point requirements as outlined below:

RETENTION CHART

Total Hours Attempted	Required Quality Point Average for Eligibility To Continue in the University
27-58	1.2
59-88	1.5
89 or more	1.8

Transfer students are placed in the above retention chart based on total hours attempted at all institutions attended. A transfer student's quality-point average is computed only on work attempted through The University of North Carolina at Wilmington.

Students who do not meet the minimum quality point requirement for retention at the conclusion of the spring semester will be declared ineligible. These students will be allowed to make up deficiencies during the summer sessions of this University which immediately follow the spring semester in which they were declared ineligible. If such deficiencies are not removed in this manner, the student will be dismissed from the university for one semester and will be required to apply for readmission to any subsequent regular semester. Readmission, if allowed, is upon a probationary basis and such students must prove themselves by meeting the required quality point average as outlined in the chart above. However any reenrolled student who makes a 2.0 average or better during the first semester after his return, but who fails to reduce his quality point deficiency to the required level, will be granted one additional semester in which to meet this requirement.

A second academic dismissal is final unless eligibility for continued residence or for readmission is restored by completion of sufficient work during summer sessions at The University of North Carolina at Wilmington.

Students who wish to restore their eligibility by taking courses at institutions other than The University of North Carolina at Wilmington may do so only with written permission of the Academic Dean.

Any full-time student who fails to pass at least three hours during any semester is subject to academic dismissal for one semester, regardless of his quality point standing. Freshmen, other than transfer students, must earn at least three semester hours of credit the first semester and six additional hours during the second semester of the first year. Any student who fails to meet

these requirements will be subject to academic dismissal. These students must also meet the minimum quality point ratio on hours attempted listed in the above table if they wish to continue in the university.

REQUIREMENTS FOR GRADUATION

Students may qualify for the bachelor's degree by completing successfully (1) the basic studies requirements, (2) an approved course of study in an area of concentration, (3) a total of 124 semester hours of credit, and (4) a minimum quality point average of 2.0 The final 15 hours of credit required for the concentration must be completed at The University of North Carolina at Wilmington.

Graduation will be certified at the end of the term in which all academic requirements are completed, providing the final 30 hours of course credit are completed at the university at Wilmington. Upon completion of all requirements, the student will receive either the Bachelor of Arts or the Bachelor of Science Degree.

Before graduation, all seniors are invited to take the Aptitude Test of the Graduate Record Examination administered by the Educational Testing Service. The test is scheduled to be given on the Wilmington campus during the spring semester.

> Application for graduation must be filed in the Office of the Registrar on or before the dates specified in the university calendar.

In advising and registering students, the deans, the registrar and the faculty advisors try to make certain that every student who intends to graduate from the university registers for those courses which are required for a degree. The student, however, must assume the final responsibility for meeting the graduation requirements set forth in the university catalogue.

A student who enrolls at The University of North Carolina at Wilmington during any academic year and who earns credit for work done during the year may always graduate under the provisions of the catalogue under which he entered or under any subsequent catalogue, providing he completes all graduation requirements within six years of the expiration date of the catalogue chosen.

Participation in the graduation exercises is required of all

eligible students unless excused by the Vice Chancellor for Student Affairs.

REQUIREMENTS FOR A DOUBLE CONCENTRATION

A student may elect to concentrate in two separate disciplines with the permission of the chairman of each of the departments and on the condition that the student meet all requirements for each concentration. The student who completes requirements for more than one concentration will receive only one degree, but at the time of his initial graduation his record will indicate both concentrations when the completed requirements lead to the same baccalaureate degree.

A student who returns to the university after his initial graduation to complete the requirements for a second concentration may have the additional area of concentration added to his official record upon written notification from the department chairman that all departmental requirements have been satisfactorily met.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree may receive a second baccalaureate degree if it is a different degree and a different concentration by fulfilling the following requirements:

(1) He must meet all the requirements for the second degree and concentration.
(2) He must complete a minimum of 30 hours in residence beyond the requirements for the first degree.

Degrees with Distinction

Three degrees with distinction are granted to graduating students based on all work attempted in meeting requirements for the degree as follows:

Cum Laude for an overall average of 3.50
Magna Cum Laude for an overall average of 3.70
Summa Cum Laude for an overall average of 3.90

Degrees with distinction are granted to transfer students under the following conditions:

1. The student must have the required overall average on all work attempted (including any transfer credit).
2. The student must have the required average on work completed at The University of North Carolina at Wilmington.

Students who complete the Senior Honors Program satisfactorily will be graduated "With Honors in" the discipline in which the special work is undertaken.

TRANSCRIPTS

All students are entitled to one official transcript of their work without charge. Additional copies of the transcript at a cost of $1.00 each may be obtained upon written request to the Office of the Registrar.

INDEBTEDNESS

All indebtedness to the university must be satisfactorily settled before a diploma or transcript of record will be issued.

CHANGE OF NAME AND ADDRESS

It is the obligation of every student to notify the Office of the Registrar of any change in name or address.

GENERAL DEGREE REQUIREMENTS

GENERAL DEGREE REQUIREMENTS

A primary objective of the curriculum is to provide an opportunity for every student to develop those skills in communication appropriate to the needs of modern society, and to acquire an understanding of the humanities, history, and the social and natural sciences as bases for cultural enjoyment and economic advancement. The basic requirements are designed to help meet this objective.

Basic Studies Requirements

To qualify for the bachelor's degree from The University of North Carolina at Wilmington, all students must meet the basic studies requirements as outlined below, and in fulfilling these requirements must acquire a total of forty-five semester hours less exemptions.

A. Basic Skills
   Courses taken to satisfy basic skills may not be used to satisfy divisional requirements. These course requirements may be waived if the student demonstrates by examination an appropriate proficiency in these basic skills areas:
   1. English Composition (6 hours)
      Required: English 101 and 102
      Composition (3-3)
   2. Mathematics (3 hours)
      Required: One of the following courses: Mathematics 101, 111, 115, 121, or any three-semester hour mathematics course above these levels except Mathematics 305.
   3. Physical Education (2 hours)
      Required: Physical Education 101 and 102 (1-1)

B. Divisional Requirements
   1. Humanities (9-15 hours)
      Required: A minimum of nine and a maximum of fifteen hours elected from at least two of the following areas:
      (a) English
          All courses except 245, 305, 306, 307, 308, and 345
      (b) History
          All courses listed in the catalogue
      (c) Modern Languages

All courses listed in the catalogue

(d) Philosophy and Religion
All courses listed in the catalogue

2. Creative Arts (3-6 hours)
Required: A minimum of three and a maximum of six hours elected from the following areas:
(a) Art
Art 201, 202, 203, 306, and all beginning studio courses except 105, 106, and 107
(b) Drama and Speech
Drama and Speech 115, 215, 221, 222 and 225.
(c) Music
Music 101, 102, 105, 115, 116, 117, 134, and 303
(d) English
English 307, 308 and 309

3. Natural Science and Mathematics (7-12 hours)
Required: A minimum of seven and a maximum of twelve hours including at least one course in a laboratory science elected from the following areas:
(a) Biology
All courses listed in the catalogue
(b) Chemistry
All courses except 107
(c) Mathematics
All Mathematics and statistics courses except 101, 111, 115, 121, and 305
(d) Physics
Physics 101, 102, 105, 106, 107, 201, and 202
(e) Earth Sciences
Geography 135, 335, 430, and 432
All Earth Science courses except 230
All Geology courses

4. Social and Behavioral Sciences (3-9)
Required: A minimum of three and a maximum of nine hours elected from the following areas:
(a) Economics
All courses listed in the catalogue
(b) Geography
All courses except 135, 330, 335, 430, and 432
(c) Political Science
All courses listed in the catalogue
(d) Psychology
All courses listed in the catalogue

(e) Sociology-Anthropology
All courses listed in the catalogue

REQUIRED PHYSICAL EDUCATION

Students should expect to develop through participation in the physical education program activity skill, more efficient physiological function, and effective movement.

The university requires all students to complete with a passing grade two semesters of activity courses. This requirement for graduation must be fulfilled during the first two years unless postponement is authorized by the chairman of the Department of Physical Education.

The above requirement must also be completed by students transferring from other institutions who have not had its equivalent. A transfer student who has not completed this requirement and who is not enrolled for a sufficient number of semesters to fulfill the requirement shall enroll for physical education activity courses for each semester he is enrolled.

The university requires that all students furnish information concerning their current health status. This information is provided on the Report of Medical History form which is kept on file in the Student Health Services Center and is a prerequisite to (1) registration in any physical education activity course, (2) participation in any intramural activity, and (3) utilization of the physical education facilities for recreational purposes.

On the basis of this information the Student Health Services Center will place the student in one of the three categories listed below:

A. Unrestricted participation
B. Restricted participation
C. Temporarily restricted participation because of an injury or illness.

The requirement in physical education may be waived wholly or in part if requested by the student for any of the following reasons:

1. Upon recommendation of the university physician.
2. If the student enters the university at the age 27 or older.
3. If he is a veteran with at least one continuous year of active military service.
4. Under exceptional circumstances on approval by the chairman of the Department of Physical Education.

ACADEMIC PROGRAMS

ACADEMIC PROGRAMS

The University of North Carolina at Wilmington offers four-year programs leading to the Bachelor of Arts and the Bachelor of Science degrees and a two-year program leading to the Associate in Arts degree in Nursing. Professional programs include the James Walker Memorial Associate Degree Program in Nursing, the Medical Technology Program and the Teacher Education Program. Pre-Professional programs are offered in engineering, engineering operations, medicine, dentistry, forestry, law, pharmacy and agriculture. The university has developed special programs in marine sciences, marine archaeology, and environmental studies. It also has an Honors Program and a Continuing Education Program.

DEGREES OFFERED

Areas of Concentration for the Bachelor of Arts Degree

Biology
Chemistry
Creative Arts:
  Art
  Drama
  Music
Earth Sciences
Economics
Elementary Education
English
Environmental Studies
French
History
Mathematics
Music Education
Philosophy and Religion
Physical Education
Physics
Political Science
Psychology
Social Science
Sociology
Spanish

Areas of Concentration for the Bachelor of Science Degree

Accounting
Biology
Business Administration
Chemistry
Computer Science
Economics
Marine Biology
Mathematics
Medical Technology
Physics

DEPARTMENTAL REQUIREMENTS

ACCOUNTING

(See Business and Economics)

ANTHROPOLOGY

(See Sociology and Anthropology)

ART

Requirements for a concentration in Creative Arts-Art for the B.A. degree: Art 111-112, 141,142, 143,144; 18 hours to be chosen from two studio areas, 1 hour of technical skills, 1-3 hours of senior exhibition; 6 hours of Art History (from 201, 202, 203, 306); one history course from each of the following areas: Drama & Speech 321 (3), 322 (3), Music (2); 6 hours to be chosen from practical or theoretical courses in Drama & Speech or Music (histories not included). Electives chosen in consultation with the advisor. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

BIOLOGY

Requirements for a concentration in Biology for the B.A. degree: Biology 105, 205, 206, and 495. In addition to these requirements, there are two options described below, one of which a student must elect in order to complete the degree requirements.

Option 1.

A minimum of 23 hours chosen from Biology 235 and courses numbered above 299 of which at least 4 must be in advanced Botany and 4 in advanced Zoology offerings; Chemistry 101-102; a minimum of 16 hours chosen from the listed courses in at least two of the following areas: Chemistry 311, 312, 333; Computer Science 105, 111, 115; Geography 432; Geology 105, 115, 205, 305; Mathematics 211, 212, 213, 225; Physics 101 or 105, 102, 201, 202, 260; Psychology 456, 457; Statistics 265. With the advance approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses at the 300-400 level.

This option is a flexible program which can be designed by a student and an advisor to meet personal educational goals and interests which may or may not include graduate study; the program may be used to meet a set of specific requirements, for example, certification for teaching at the secondary school level.

Option 2.

Biology 366, 475; at least two of the following: Biology 356, 357, 358, 456; a minimum of 8 hours chosen from Biology 315, 316, 335, 345 or 355, 375, 377, 395, 466, 491; Chemistry 101-102; a minimum of 16 hours chosen from Chemistry 311, 312, Mathematics 111, 112, Geology 105, 115, Geography 432, Psychology 457, Statistics 265, Computer Science 105, 111, 115. With the advance approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses at the 300-400 level.

This option is designed for students interested in studying fresh-water and terrestrial higher plants and animals and who will pursue graduate study and/or careers in such fields as systematics, ecology, fish and game management, and nature interpretation in parks and wilderness areas.

Requirements for a concentration in Biology for the B.S. degree: Biology 105, 205, 206, 315 or 375, 335 with lab, 345 or 355 or 347 with or without lab, 366, 395, 495, and a minimum of 6 additional hours in courses numbered above 299. Of these 6 hours at least 3 must be in advanced Botany and 3 in advanced Zoology offerings. Collateral requirements are Chemistry 101-102, 311-312; Physics 101-102 or 201-202; Mathematics 111-112 or 211-212. One or two years of French or German are highly recommended. A "C" or better average on Biology courses at the 300-400 level.

This degree program is designed for those students who plan to attend graduate school or seek employment in various fields of biological specialization.

Requirements for a concentration in Marine Biology for the B.S. degree: Biology 105, 205, 206, 362, 366, 395, 495; a minimum of 7 hours selected from the following groups of courses with at least one course from each group: *Group 1.* 345, 355, 347 with or without lab; *Group 2.* 315, 316, 335 with or without lab; a minimum of 8 hours selected from the following: 358, 365 or 485-2, 446 or 485-1, 458, 468. Collateral requirements are Chemistry 101-102; Geology 205; Physics 101-102 or 201-202; Mathematics 111-112 or 115-225 or a higher sequence; a minimum of 4 semester hours

chosen from Chemistry 311, 312, 333, 335, Computer Science 111 and 115, Earth Sciences 230, Geography 430, 432, Geology 105, 305, 330, Statistics 265. A "C" or better average on Biology courses at the 300-400 level.

This degree program is designed for those students who plan to attend graduate school or seek employment in fields of biological specialization which are marine-related.

Requirements for a concentration in Medical Technology for the B.S. degree: Biology 215, 425, and a minimum of 8 semester hours chosen from the following: Biology 335, 345, 377, 445, and appropriate topics in 495. Chemistry 101-102, and 311-312. Satisfactory completion of the twelve-month Medical Technology Program at an affiliated hospital. Courses in Physics, Biochemistry, Quantitative Analysis, Computer Science, and Statistics are also highly recommended. It is recommended that students complete the following courses in the freshman year: Mathematics 111-112, Chemistry 101-102, Physics 101-102, English 101-102, and Physical Education 101-102. A "C" or better average on courses taken at the university.

BUSINESS AND ECONOMICS

The Department of Business and Economics offers the B.S. degree with concentrations in Accounting, Business Administration, and Economics. The department participates in offering the B.A. degree with a concentration in Social Science by providing a discipline in Economics. The department further provides coordination and primary support for three years of study at UNC-Wilmington leading to a B.S. degree in Engineering Operations (Production Sequence) from North Carolina State University after completion of the final year in residence on the Raleigh campus.

Accounting

The Accounting concentration prepares for careers as accountants in commerce and industry, government, and/or public accounting. Students expecting to sit for the Certified Public Accountants (CPA) examination should take additional accounting courses numbered above 399. Students expecting to sit for the Certified Management Accountants (CMA) examination should take additional electives in management and finance.

Requirements for a concentration in Accounting for the B.S. degree:

(a) Foundation courses: Accounting 201-202, Business 206, Economics 251, 252.
(b) Business and Economics core: Business 301-302, 310, 335, 355, 453 or 455, 461-462, and Economics 336.
(c) Accounting 301-302, 305, 308, 407, and two courses in Accounting numbered above 399.

Business Administration

The Business Administration concentration provides the academic preparation for management careers in product and service organizations and non-profit institutions. The courses in (c) below may be selected from subject areas such as accounting, economics, finance, marketing, operations, and/or transportation, in order to provide a broader perspective in business operations, functions and problems, or to pursue a given function in greater depth.

Requirements for concentration in Business Administration for the B.S. degree:

(a) Foundation courses: Accounting 201-202, Business 206, Economics 251, 252.
(b) Business and Economics core: Accounting 306, Business 301-302, 310, 335, 345, 355, 357, 455, 461-462, and Economics 336.
(c) Four courses selected from Accounting, Business, and/or Economics courses numbered above 299.

Economics

The Economics concentration prepares for careers which emphasize broad understanding of the operation of the economy and the proper choice of policies by both government and business enterprises.

Requirements for a concentration in Economics for the B.S. degree:

(a) Foundation courses: Accounting 201-202, Business 206, Economics 251, 252.
(b) Economics 301-302, 315, 316, 495, Business 335, and four courses from the following: Economics 305, 327, 338, 401, 417, 420, 426, 427, 428, and 446.
(c) Select six courses to supplement the study of Economics. These courses may be selected from the courses in (b) above or from outside the Department of Business and Economics but must include at least three

courses from Accounting and Business courses numbered above 299.

Requirements for a concentration in Social Science with an emphasis in Economics for the B.A. degree:

(a) Economics 251, 252, 315, 316, and at least three additional courses in Economics numbered above 299.

(b) Additional requirements for a concentration in Social Science for the B.A. degree as described under Social Science.

A "C" or above average is required in all accounting, business, and/or economics courses required in the concentrations for the B.S. degree. It is recommended that students complete the following courses in the freshman year: Mathematics 121-122 and English 101-102.

Students expecting to do graduate work in accounting, business administration, or economics are advised to complete a mathematical sequence through the calculus and to broaden their programs by electing courses in such areas as English, Mathematical Sciences, and the Social Sciences.

The joint program offered by the Department of Engineering Operations at North Carolina State University and the University of North Carolina at Wilmington allows a student to complete 90 semester hours of course work at UNC-Wilmington and 38 semester hours of course work at NCSU. Students interested in this program should contact the Chairman of the Department of Business and Economics at UNC-Wilmington or the Director, Engineering Operations Program, NCSU, Raleigh North Carolina 27607.

CHEMISTRY

Requirements for a concentration in Chemistry for the B.A. degree:

Chemistry 101-102, 101-51, 102-51, 311-312, 311-51, 312-51, either 325 and 325-51 or 321 and 321-51, either 333 and 333-51 or 335 and 335-51, 355, 495, and 4 hours of Advanced Chemistry; Mathematics 111-112 (or 115) and either 225 or 211; one of the Physics sequences; and two courses chosen from the following: advanced courses in Physics, advanced courses in Mathematics, and courses in Biology. A "C" or better average in Chemistry courses.

Requirements for a concentration in Chemistry for the B.S. degree:

Chemistry 101-102, 101-51, 102-51, 311-312, 311-51, 312-51, 315, 316, 321-322, 321-51, 322-51, either 333 and 333-51 or 335 and 335-51, 355, 435, 435-51, 445; either 445-51, 467, or 491 (1 hour); 495, and two of the following: CHM 415, 446, 465, or 491 (3 hours). Physics 201-202 and Mathematics 315. A "C" or better average in Chemistry courses. Students working for the B.S. degree should arrange their work so as to take Chemistry 321-322 in the junior year. Two years of German are recommended.

COMPUTER SCIENCE

(See Mathematical Sciences)

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA & SPEECH

Requirements for a concentration in Creative Arts—Drama for the B.A. degree:

D&S 115, 321, 322, 460, 461, 485; at least 19 other hours in D&S; one Art History course from 201, 202, 203 and one Music History course from 211, 212, 213, and six additional hours in either Art or Music; electives chosen in consultation with advisor. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

EARTH SCIENCES

The Department of Earth Sciences offers a concentration which permits the student to select one of three emphases preparing him for advanced studies or for teaching, research and technical careers available to one who holds the baccalaureate degree.

Requirements for a concentration in Earth Sciences for the B.A. degree:

Earth Sciences 230, 390, 490, 495; Geography 135, Geology 105; 7 to 9 hours from Geography 330, 335, 430, 432; and 7 to 8 hours from Geology 115, 205, 215, 216, 217, 315. Collateral requirements are Chemistry 101-102, Physics 102-102, and Statistics 265. A "C" or better average on all courses taken within the department.

Requirements for a concentration in Geography for the B.A. degree:

Geography 135, 145, 215, 330; Earth Sciences 390, 495; and at least 18 additional hours in Geography. Collateral requirements

are Geology 105, Statistics 265, and at least 15 hours selected from Anthropology, Biology, Chemistry, Computer Science, Earth Sciences, Economics, Geology, History, Mathematics, Physics, Political Science, Psychology and Sociology. A "C" or better average on all courses taken within the department. Students planning to attend graduate school are urged to take Computer Science 111 and 115, Mathematics 111-112 or 115, and French 101-102 or German 101-102.

Requirements for a concentration in Geology for the B.A. degree:

Geology 105, 115, 215, 216, 217, 315, 316, 330; and Earth Sciences 230, 390, 495. Collateral requirements are Chemistry 101-102, Statistics 265, and 8 hours selected from Biology, Chemistry, Computer Science, Earth Sciences, Geography and Physics. A "C" or better average on all courses taken within the department. Students planning to attend graduate school are urged to take Computer Science 111 and 115, Mathematics 211-212, French 101-102 or German 101-102, Geography 135 and a summer field course in Geology offered by another institution.

ECONOMICS

(See Business and Economics)

ELEMENTARY EDUCATION

*Requirements for a concentration in Elementary Education for the B.A. degree:**

Early Childhood (K-3): Education 215, 315, 325, 355, 361, 365, 460-2, and two courses selected from the following: Education 335, 345, 415, 425, and 371; Psychology 216 and 220. Required collaterals are Art 201 or 202, or 203, 385; Drama and Speech 115 or 215; and one three-hour course in literature offered by the English Department; Geography 135; History 231, 232; Music 115, 325; Political Science 205; Physical Education 305, 385; Physics 305; one laboratory course selected from Biology, Chemistry, Geology or Physics; and one of the following groups: Language Arts (9 hrs.); Social Studies (11 hrs.) three hours must be selected from Anthropology, Economics or Sociology; Art (12 hrs.); Mathematical Sciences (12 hrs.); Music (12 hrs.); Physical Education (12 hrs.); Science (11 hrs.).

Intermediate Education (4-9): Education 215, 315, 335, 371, 460-6, and two courses selected from the following: Education 335, 345, 361, 415, and 425; Psychology 216 and 220. Required

collaterals are Art 201 or 202 or 203, 385; Drama and Speech 115 or 215; English 345, and one three-hour course in literature offered by the English Department; Geography 135; History 231, 232; Mathematics 305; Music 115, 325; Political Science 205; Physical Education 305, 385; Physics 305; one laboratory course selected from Biology, Chemistry, Geology or Physics; and one of the following groups: Language Arts (9 hrs.); Social Studies (11 hrs.), three hours of which must be selected from Anthropology, Economics or Sociology; Art (12 hrs.); Mathematics (12 hrs.); Music (12 hrs.); Physical Education (12 hrs.); Science (11 hrs.).

Elementary Education degree candidates must earn a "C" or better grade on all Education and Psychology courses. NOTE: Approximately thirty semester hours from the list of collaterals may be used selectively to meet divisional requirements in basic studies.

*NOTE: Degree requirements for Elementary Education are currently under review and are subject to change. Students will be subject to requirements in effect at the time they enter the professional program. Students interested in the concentration in Elementary Education should consult the Department of Education for information regarding requirements.

ENGINEERING

(See Earth Sciences)

ENGLISH

Requirements for a concentration in English for the B.A. degree:

English 101-102, 211, 212, and 24 hours at the 300-400 level, including one American literature course, one Shakespeare course, 460, and five electives (which must include 305 and 306 for teacher certification). Fifteen hours of collaterals selected from: Art 201, 202, 203, 306; Drama and Speech 115, 221, 222, 225, 465; Music 115, 116; or any courses offered by the Departments of Modern Languages (except Spanish 205), History, and Philosophy and Religion. A "C" or better average on English courses.

ENVIRONMENTAL STUDIES

Requirements for a concentration in Environmental Studies for the B.A. degree:

Core: Environmental Studies 195, 495, Statistics 265 and

Computer Science 111 and 115. Four courses representing four different disciplines selected from: Chemistry 333 (EVS 333); Physics 106 (EVS 106); Biology 205, 206; Geology 105, 120; Geography 135. Three courses representing three different disciplines from: Political Science 304, 308; Sociology 205; Psychology 370 (EVS 370); Economics 305 (EVS 305).

Specialization: A minimum of 20 hours, taken from one of four options. All course sequences must be above the 299 level and approved by the Environmental Studies Chairman. A "C" or better average is required. Option (1) Marine Science: A sequence of courses including Biology 362, 466; Geology 205, 305, and Geography 432. Option (2) A disciplinary course sequence with an emphasis restricted to one of the following: Biology, Chemistry, Economics, Earth Sciences, Mathematical Sciences, Physics, Political Science, Psychology, Sociology. Option (3) A substantive interdisciplinary sequence selected from either (a) The Natural and Mathematical Sciences or (b) The Social and Managerial Sciences. Option (4) A topical multidisciplinary approach in which the student in conjunction with his advisor and the Environmental Studies Chairman designs his own specialization in order to investigate a specific environmental topic. The student will choose courses appropriate to the investigation and write a senior paper (EVS 490) at the completion of the project.

FRENCH

(See Modern Languages)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

HISTORY

Requirements for a concentration in History for the B.A. degree:

History 111, 112, 231, 232; an additional 24 hours in History (with a minimum grade of C) at the 300-400 level. Upper level work should encompass a broad range rather than specialization within one area of history, and students are expected to complete the required lower level courses before upper level

ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least 4 of the following areas: English, Modern Languages, Philosophy and Religion, and the Social Sciences: Anthropology, Economics, Geography, Political Science and Sociology. History majors working toward certification in Social Studies for secondary school teaching must complete a minimum of 21 hours in the Social Sciences, with courses in at least 3 areas.

MARINE BIOLOGY

(See Biology)

MATHEMATICAL SCIENCES

Requirements for a concentration in Computer Science for the B.S. degree:

Computer Science 111, 211, 311, 331, 332, 340, 445, and either 115 or 116; Statistics 361. (It is highly recommended that students take more from 115, 116, 117, and 118.) In addition to these requirements there are three options below, one of which a student must complete in order to fulfill the degree requirements. In general, enough latitude is allowed in each to accommodate a double major if the student wishes.

Scientific: Computer Science 325, 425, 431, 432, and three hours at the 300-400 level approved by the advisor; Mathematics 315, 335; Physics 201, 202.

Systems: Computer Science 325, 410, 415, 435 and three hours at the 300-400 level approved by the advisor; Mathematics 335, 336; Physics 201.

Business: Computer Science 117, and six hours at the 300-400 level approved by the advisor. Accounting 306; Business 302, 355, 357; six hours chosen from Business 335, 345, 406, 449, or Economics 420, 417.

A "C" or better average is required on Computer Science courses at the 300-400 level.

Requirements for a concentration in Mathematics for the B.S. degree:

Mathematics 115, 211-212-213, 315, 317, 335, 336, 411-412, and at least two additional 300-400 level Mathematics courses. Collaterals: Computer Science 111 and either 115, 116, 117 or 118; Chemistry 101; Physics 201-202; Statistics 361; and two courses at the 300-400 level chosen from Accounting, Chemistry, Computer Science, Economics, Physics, Philosophy and Religion 318,

and Statistics. A "C" or better average on Mathematics courses at the 300-400 level. It is recommended that students elect at least a year of either French or German.

Requirements for a concentration in Mathematics for the B.A. degree:

Mathematics 115, 211-212-213, 315, 317, 335, 336, 411, and at least two additional 300-400 level Mathematics courses (which must include Mathematics 345 and 346 for teacher certification). Collaterals: Computer Science 111 and either 115, 116, 117 or 118; Physics 201-202; Statistics 361; and two courses at the 300-400 level chosen from fields in which Mathematics is applied. A "C" or better average on Mathematics courses at the 300-400 level. It is recommended that students elect at least a year of either French or German.

MEDICAL TECHNOLOGY

(See Biology)

MODERN LANGUAGES

The Department of Modern Languages offers the B.A. degree in French or Spanish.

Requirements for a concentration in French for the B.A. degree:

Completion of all 300 level courses in French and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305 or 306; History 111 and 112; one course in English literature; and one additional foreign language through the intermediate level.

Requirements for a concentration in Spanish for the B.A. degree:

Completion of all 300 level courses in Spanish and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305 or 306; History 111 and 112; one course in English literature; and one additional foreign language through the intermediate level.

MUSIC

Requirements for a concentration in Music Education for the B.A. degree:

Mus 101-102, 201-202, 211, 212, 213, 301-302; six semesters of applied music; six semesters of participation in a major ensemble (Mus 085, 086, or 087. Pianists may substitute two semesters of Mus 082); a recital or thesis. Requirements for teacher certification by the Department of Public Instruction of the State of North Carolina: Music 181-182, 221, 231, 261, 306, 325, 326, 337, 405, and 406; professional education core required for certification. A "C" or better grade on each Music course taken.

Satisfactory completion of a piano proficiency examination is required of all students. Those who do not pass the proficiency examination upon entering the music program are required to take piano class until the level of proficiency in the examination has been reached. No student will be considered for practice teaching who has not passed this examination. Attendance at weekly music department seminars is required.

Requirements for a concentration in Creative Arts-Music for the B.A. degree:

Music 101-102, 201-202, 301-302, 6 semesters of applied music; 6 semesters of ensemble participation; recital or thesis. Music 211, 212, 213; 3 hours of history from each of the two following areas: Drama & Speech 321, 322, Art. Six additional hours to be chosen from either Drama and Speech or Art. Electives chosen in consultation with advisor.

A "C" or better grade in all courses taken to meet the Creative Arts degree requirements. Satisfactory completion of piano proficiency examination is required of all students.

Those who do not pass the proficiency examination upon entering the music program are required to take piano class until the level of proficiency in the examination has been reached. Attendance at weekly music department seminars is required.

To facilitate entrance into either of the above music programs, an audition, interview, and theory placement test are required.

PIANO PROFICIENCY EXAMINATION

1. Prepare from memory one piece (as found in Piano Methods for Adults by Bastien-Bastien) on the level of:
   Minuet in F major—Mozart
   Minuet in G—Bach
   Sonatina in C major—Clementi
   Sonatina in C, Op. 157, No. 1—Spindler
2. Sight Reading: Material appropriate to the level as described above.

3. Arpeggios: All major and minor arpeggios hands together, 2 octaves, ascending & descending.
4. Triads: To be played hands together, all major and minor triads, root position, first inversion, second inversion, ascending and descending—basic cadential progressions, including secondary dominants and modulation.
5. Scales: All major and minor scales, hands together, 2 octaves ascending & descending.
6. Harmony: Students will be required to harmonize at sight simple folk songs with appropriate accompaniment.

NURSING

Requirements for a concentration in Nursing for the A.A. degree:

Nursing 110, 120, 135, 220, 225, 250; English 101, 102; Psychology 145, 220; Sociology 105; Biology 215, 225; Chemistry 107; an elective from the Humanities or Creative Arts.

Completion of the program of studies requires a grade of "C" or better in each course carrying a Nursing title plus a "Satisfactory" on performance in all clinical laboratory work.

PHILOSOPHY AND RELIGION

Requirements for a concentration in Philosophy and Religion for the B.A. degree:

Philosophy and Religion 101, 201, 202, and 21 additional hours, including 9 at the 300-400 level, six of which must be at the 400 level. Collateral courses will be determined in individual consultation with the advisor.

PHYSICAL EDUCATION

Requirements for a concentration in Physical Education for the B.A. degree:

Teacher certification: Physical Education 101, 102, 105, 215, 220 (minimum of 10 activities), 235, 305, 306, 316, 320, 355, 385, 386, 415, 420, 435.

Required collaterals: Biology 105, 206; Psychology 216 and 220 or 221; Education 200, 361 or 371, 459, 460. A "C" or better grade on all required physical education courses.

Recreation emphasis: Physical Education 101, 102, 215, 306, 316, 415; Recreation 265, 266, 267, 365, 366, 368, 465. Required collaterals: Psychology 220, 221, 322; Sociology 215, 225. A "C" or better grade on all required physical education and recreation courses.

PHYSICS

Requirements for a concentration in Physics for the B.A. degree:

Physics 201-202, 315, 321, 335, 400 (2 hours), 495 (1 hour), and 8 additional hours as recommended by the advisor; Mathematics 315, 316; a minimum of 4 hours in Chemistry. A "C" or better average in Physics courses at the 300-400 level.

Requirements for a concentration in Physics for the B.S. degree:

Physics 201-202, 315-316, 321-322, 335-336, 400 (3 hours), 495 (1 hour), and 6 additional hours in Physics as recommended by the advisor; Mathematics 315, 316 and 3 additional hours above the calculus; 2 semesters of Chemistry. A "C" or better average in Physics courses at the 300-400 level.

POLITICAL SCIENCE

Requirements for a concentration in Political Science for the B.A. degree:

Political Science 111, 205, 311 and 27 additional hours, of which 21 must be at the 300-400 level. At least one course at the 300-400 level must be taken in each of the following sub-fields of Political Science: American Government and Politics, Political Theory (Normative and Empirical) and Methodology, International Relations, Comparative Government. Required collaterals: 24 hours selected from at least four of the following disciplines: Anthropology, Economics, Environmental Studies, Geography, History, Psychology and Sociology. A "C" or better average on all 300-400 level Political Science courses. Students planning to do graduate work are urged to study a modern language and acquire a basic knowledge of Computer Science, Statistics and Mathematics through the calculus.

PSYCHOLOGY

Requirements for a concentration in Psychology for the B.A. degree:

Psychology 105, 225, 355, 405 and a minimum of 21 additional hours. These must include at least two courses from among 346, 347, 365, 370, and 465, and at least two from among 310, 410, 417, 420, 456, and 457. Twelve hours of collaterals from a related field and approved by the advisor are required. A "C" or better average on psychology courses must be maintained.

SOCIAL SCIENCE

Participating disciplines: Anthropology, Economics, Earth Sciences, Political Science, Psychology, and Sociology.

Requirements for a concentration in Social Science for the B.A. degree:

Forty-eight hours in the Social Sciences. Work must be taken in at least 3 areas with a minimum of 21 hours in one area and 12 hours in a second area of concentration. A minimum of 30 hours must be in courses above 299. Required collaterals: 6 hours in History and 3 hours in an introductory Statistics course (Statistics 265 or a departmental equivalent chosen from the student's major field).

SOCIAL WORK

(See Sociology and Anthropology)

SOCIOLOGY AND ANTHROPOLOGY

Requirements for a concentration in Sociology for the B.A. degree:

Sociology 105, 405, 406, 455, 490, and 18 additional hours, 12 of which must be at the 300-400 level; Computer Science 105; Statistics 265. Additional knowledge of computer science and mathematics through calculus are recommended, particularly for those students who plan to attend graduate school. Collaterals will be decided upon in consultation with each advisee. A "C" or better average on each 300-400 level departmental course required of majors.

The major specializations represented in the department are Sociology, Anthropology, Social Work, and Criminal Justice. Within Sociology some areas of emphasis are deviance, environmental studies, planning, change, population and urban ecology.

The department does offer some alternatives to the above requirements for students who opt to specialize in areas such as Social Work, Criminal Justice or Anthropology. These alternatives are periodically being updated and are always available in the department.

SPANISH

(See Modern Languages)

PROFESSIONAL PROGRAMS

JAMES WALKER MEMORIAL ASSOCIATE DEGREE PROGRAM IN NURSING

Director: Miss Dixon

The Nursing Program is designed as a two-year program to prepare graduates who will meet the requirements for the Associate in Arts degree in Nursing. Upon completion of the prescribed program, the graduates are eligible to write the State Board of Nursing Examination for licensure as registered nurses and will be able to provide patient-centered nursing care in beginning practitioner positions.

Admission to the Associate Degree Program in Nursing requires in addition to acceptance to the university an interview with and approval by the Department of Nursing.

MEDICAL TECHNOLOGY

Advisors: Mr. F. Allen, Mrs. Pittman

The University of North Carolina at Wilmington offers, in cooperation with affiliated hospitals which have been approved for this purpose by the American Society of Clinical Pathologists, the Bachelor of Science degree with a concentration in Medical Technology. The first six semesters of the program (90 semester hours) are completed on campus and students are required to attain a 2.0 average on work attempted. The final year is spent in residence at an approved affiliated hospital.

At the present time there is a great deal of competition for available space in the 4th year of training, and completion of the first three years of the program does not necessarily mean the student will automatically be admitted to the twelve-month course in Medical Technology at a hospital. Application to the desired affiliated hospital should be made early in the junior year with the approval of the faculty advisor as entrance requirements may vary at individual hospitals. Upon acceptance the student must notify the advisor by filling out the required form.

Upon successful completion of this four-year program the student will receive the Bachelor of Science degree in Medical Technology from the university and will be eligible to take the examination for certification by the American Society of Clinical Pathologists (ASCP).

Application for graduation should be filed in the office of the registrar during the first semester of the junior year.

Requirements for the B. S. degree in Medical Technology are listed under Biology in the Departmental Requirements section of this catalogue.

THE TEACHER EDUCATION PROGRAM

Advisor: Dr. Doss

The Teacher Education Program at The University of North Carolina at Wilmington stresses a broad education base, a sound subject matter preparation, and an appropriate emphasis on professional education to meet state certification requirements and to give the prospective teacher confidence.

All students who expect to follow the Teacher Education Program must be formally admitted into the program according to policy established by the University Council on Teacher Education. To be eligible for admission, students must have completed 30 semester hours of college credit and have a minimum grade point average of 2.0.

In addition to the basic requirements for graduation, the program includes the following courses on which a grade of "C" or better is required:*

Psychology 216—Educational Psychology (3)
Psychology 220—Child Psychology (Elementary Teachers) (3)
Psychology 221—Adolescent Psychology (Secondary Teachers) (3)
Education 215—Orientation to Teaching (3)
Education 315—Historical and Philosophical Foundations of Education (3)
Education 371—Improvement in Reading Instruction (3)
Education 459—Sociological Foundations of Education (6)
Education 460—Theory and Practice of Teaching (9)

The university is authorized to certify students for teaching at the secondary level in the following areas: Biology, Chemistry, English, French, History, Mathematics, Music, Physical Education, Physics, and Spanish. Students who major in History, Political Science or Sociology may obtain teacher certification in

*NOTE: Teacher certification requirements for Secondary Education are currently under review and are subject to change. Students will be subject to requirements in effect at the time they enter the program. Students interested in Teacher Education should consult the Department of Education for information regarding requirements.

Social Studies. Requirements are a minimum of 21 semester hours in three additional social studies areas. Students seeking certification on the secondary level are required to complete a concentration in a subject area normally taught in secondary schools in addition to the professional work listed above.

PRE-PROFESSIONAL PROGRAMS

PRE-AGRICULTURE AND PRE-FORESTRY

Advisor: Dr. Sieren

Pre-professional programs in forestry and agriculture are arranged which enable students to transfer to schools offering professional training in the two fields. The programs are designed to meet the requirements and recommendations of the professional schools and students should plan their programs in consultation with the pre-agriculture or pre-forestry advisor.

PRE-ENGINEERING

Advisors: Mr. Dempsey, Mr. Long and Mr. Lupton

The university offers the first two years of work in engineering. On satisfactory completion of this program students transfer into the junior year at a specialized engineering school without loss of time toward graduation.

General Requirements: Mathematics 115, 211 (students with sufficient background should place immediately into Mathematics 211), 212, 213, 315; Chemistry 101, 102; Computer Science 111, and 115 or 116; Engineering 111; Physics 201, 202; English 101, 102, and one literature course; Economics 105; one History course; Physical Education 101, 102, (N. C. State University requires 4 credit hours); and one elective (Civil Engineering students should consider Geography 330).

Specific Requirements:

Chemical Engineering: Chemistry 311, 312

Civil Engineering: Geology 105; Engineering 211, 212

Electrical Engineering: Physics 215, 216

ENGINEERING OPERATIONS (PRODUCTION SEQUENCE)

Advisor: Dr. Kaylor

The University of North Carolina at Wilmington offers jointly with North Carolina State University a program leading to the Bachelor of Science in Engineering Operations degree with a production sequence. Students in this program take 90 semester hours as specified below at UNC-Wilmington and the final 38 semester hours in residence at North Carolina State University. The degree is conferred by North Carolina State University at Raleigh.

Courses to be Taken at UNC-Wilmington:

	Semester Hours
*Physical Education	4
**English 102 Composition	3
*Literature	3
*History	3
*Humanities/Social Sciences	9
Economics 251 Principles of Economics	3
Economics 252 Principles of Economics or Business Administration 356 Personnel Management	3
Accounting 201 Principles of Accounting	3
+ Accounting 202 Principles of Accounting	3
Accounting 305 Cost Accounting or Accounting 306 Accounting for Management Control	3
Business Administration (one of the following): BUS 345, Marketing; BUS 348, Sales and Sales Management; BUS 356, Personnel Management; or BUS 461, Business Law	3
Economics 427 Labor Economics	3
Mathematics 211, 212, 213 Calculus with Analytic Geometry	12
++ Statistics 265 Introduction to Statistics	3
Physics 201, 202 General Physics	10

*Specific courses to be selected by student within the prescribed areas.

**English 101 is not required except as prerequisite to English 102. Transfer credit will not be given toward Engineering curriculum.

+Accounting 202 is not required except as prerequisite to Accounting 305 or Accounting 306. Credits will be transferred as elective credits.

++In lieu of Statistics 265, Statistics for Engineers ST 361, may be taken by correspondence from NCSU.

Chemistry 101, 102	General Chemistry	8
Engineering 111	Engineering Graphics	3
Computer Science 111	Intro. to Computing Techniques	2
Computer Science 115	Programming Laboratory—FORTRAN	1
*Free Electives		8
	Total Credits at UNC-W	90

PRE-MEDICINE AND PRE-DENTISTRY

Advisor: Dr. Levy

Students who expect to apply for admission to medical or dental schools should be aware of the high standard of work at the undergraduate level required by these professional schools and of the specific course requirements for admission.

Requirements for admission to medical schools differ slightly from those to dental schools. Basic work in Biology, Physics and Chemistry (including organic chemistry) is required in both instances. Students should plan their programs with the help of their pre-professional advisor.

PRE-LAW

Advisor: Dr. James Dixon

Students who plan to prepare for law school may select a major in any discipline that fulfills the general and specific requirements for a baccalaureate degree at UNC-W. In developing a pre-law program, the student should be aware of the recommendation of the Association of American Law Schools, which describes the basic skills and insights it believes fundamental to the later attainment of legal competence. These are (a) comprehension and expression in words, (b) critical understanding of human institutions and values with which the law deals; and (c) creative power in thinking. In order to develop these capacities, the association recommends a pre-legal education of "the broadest scope." To accomplish these goals The University of North Carolina at Wilmington offers a wide range of pre-law courses. Although Political Science and Business are frequently selected by pre-law students as their major, Economics, History, Sociology and others are sometimes selected. Regardless of the area of concentration, the pre-law student should be zealous in the

selection of electives that will facilitate critical understanding of economic, political and social institutions. Since a lawyer must be able to communicate effectively, the pre-law student is well-advised to lay special emphasis on communicative skills. Also a knowledge of elementary accounting is desirable and highly recommended.

Finally, the pre-law student should remember that the quality of undergraduate instruction is more important than the subject matter area. The Association of American Law Schools recommends the selection of courses which require the greatest preparation and intellectural discipline. "The best trained applicant for law school," states the Association, "is the student who has studied under teachers who have inspired, challenged, and pressed him."

All candidates for law school are urged to apply for admission and register for the October or December administrations of the Law School Admission Test. This should be done during the fall of their senior year in college. The Law School Admission Test is explained fully in the Law School Admission Bulletin which is available in the Political Science Department at UNC-W. Additional information and helpful advice may be secured from designated pre-law advisors in the Department of Political Science.

PRE-PROFESSIONAL PROGRAMS IN PHARMACY (and other fields)

Pre-professional programs in Pharmacy and other fields are arranged in two-year to four-year programs. Students interested in these programs will be assigned to faculty advisors familiar with requirements and recommendations of the respective professional schools.

SPECIAL PROGRAMS

MARINE SCIENCES

Marine Science activity at The University of North Carolina at Wilmington consists of instructional and research programs on the university's main campus as well as specialized research activities associated with its Institute of Marine Biomedical Research at Wrightsville Beach.

The Program in Marine Sciences on the university's main campus is three-faceted, consisting of a Marine Biology curriculum leading to the B.S. degree, an Environmental Studies curriculum leading to the B.A. degree, and a Faculty Marine Science Research Program.

MARINE BIOLOGY CURRICULUM

The UNC-W Marine Biology curriculum is a unique baccalaureate program in the university system. It includes a strong foundation of Biology with an emphasis in Marine Biology at the junior and senior levels. Full use is made of the natural laboratory provided by the adjacent Atlantic Ocean through extensive field work in many Marine Biology courses. Approved collateral requirements include marine-oriented courses in Math, Physics, Chemistry and the Earth Sciences. The curriculum is flexible enough to meet the individual needs of the student enabling preparation for graduate studies or for teaching and research careers available to one with the baccalaureate degree. Requirements for the B.S. degree in Marine Biology are listed under Biology in the Departmental Requirements section of this catalogue.

MARINE SCIENCE RESEARCH PROGRAM

The Marine Science Research Program has many active participants with research interests covering areas of Marine Biology, Physical and Chemical Oceanography, Marine Geology and Marine Biogeography. There are two categories of participants in the program: those who hold research positions and those who hold regular teaching positions but who are also engaged in Marine Science research. All participants are involved in the Marine Science instructional program.

ENVIRONMENTAL STUDIES CURRICULUM

The Environmental Studies curriculum emphasizes the importance of multidisciplinary approaches in the study of environmental problems, particularly those dealing with the marine environment. The curriculum exposes students to a broad range of analytical procedures in the natural and social sciences, while allowing them to develop special capabilities within their primary area of interest.

The curriculum is divided into two parts: a multi-disciplinary core consisting of course work in the natural and social sciences,

including an Environmental Impact seminar, and an area of specialization consisting of course work within approved disciplines. Those who wish to emphasize Marine Science may do so by electing an approved sequence of courses in Marine Science. Other available concentrations include: Biology, Chemistry, Economics, Earth Sciences, Management, Math, Physics, Political Science, Psychology, Sociology, and Anthropology. Requirements for the B.A. degree in Environmental Studies are listed in the Departmental Requirements section of this catalogue.

INSTITUTE OF MARINE BIOMEDICAL RESEARCH

The Institute of Marine Biomedical Research of the University of North Carolina at Wilmington is dedicated to a dual purpose: it endeavors to maintain a coherent research program of a high standard of excellence, and it endeavors to do so in a manner that will afford the greatest possible opportunity for active student participation in the conduct of such a research program. True to the Institute's name, the research program is directed to the exploration of medical and physiological problems affecting the relation of man to the sea as well as to the exploitation of unique opportunities for biomedical research afforded by special properties of marine animals. In developing its program the Institute has sought to balance three imperatives: the establishment of a research program which will subserve national needs in the thrust to increase understanding and utilization of the resources of the world ocean; concern with the peculiar needs of the citizens of the State of North Carolina as they view the implications of their large sea frontiers; and the needs of the biomedical community to exploit the unique opportunities for research arising from the marine environment.

In pursuing these objectives the Institute has played a leading role in the study of the physiological aspects of the penetration of man into the deep-sea, and in particular the discovery and exploration of the effects of high pressures upon functioning of the human brain. The oceanographic program is dominated to a considerable extent by the Institute's ability to develop methods for collecting, maintaining, and observing live animals from the lower reaches of the continental shelf and the deep sea. The Institute has played a prominent part in developing the engineering methods without which such an effort would be meaningless and at the same time is sustaining a program of research cruises which have deployed unique instrumentation developed here and are contributing to an understanding of the deep sea adjoin-

ing the continental slopes. Finally, the Institute maintains a growing program of research on the biology of the nervous system stemming originally from its concern with Man-in-the-Sea related problems, but broadening increasingly to deal with problems of nerve conduction, of spread of impulses in the central nervous system, and with the biology of convulsive disease.

The Institute's facilities are housed in a series of laboratory buildings on its campus near Wrightsville Beach which include workshops, animal facilities, laboratories, and a specialized research library. The Institute's staff includes in addition to its specialized senior scientists, highly competent technical staff, and most particularly a sizeable group of students who are viewed as junior research associates and carry a big part of the burden of conducting, evaluating, and reporting to the scientific community the results of the Institute's work. The Institute has maintained a continuing program of field research involving cruises and expeditions to numerous countries. The results of the Institute's research efforts have been presented in a series of over a hundred communications over the last decade. In addition, senior staff of the Institute have responded to public needs by serving on numerous expert boards, commissions, and councils shaping marine-related policies both at the national and at the state level.

FIELD SCHOOL IN MARINE ARCHAEOLOGY

The Department of Sociology and Anthropology, in cooperation with the Archaeology Section of the North Carolina Division of Archives and History, offers a unique experience in archaeological instruction during the summer. Primary emphases are the locating and mapping of underwater wrecks along the North Carolina coast between Cape Hatteras and Cape Fear. Actual excavation of some sites is followed by experimential training in the preservation and interpretation of recovered artifacts.

Previous archaeological experience, upper-class status, recognized scuba certification and medical fitness are required for participation in this program. Both the methodology of marine archaeology and actual experience of diving on sites are planned for each summer session.

THE TROPICAL EXPERIENCE

The Department of Biology offers on an alternate year basis a six-week summer field program in selected areas of the tropical world. Participating students may conduct individual or group

research in marine biology, vertebrate zoology, botany, or ecology.

HONORS PROGRAM

A student who has a quality point average of 3.0 or better (including all transferred work) over the first two and one-half years of college work (74 semester hours), who has completed at least 30 semester hours work with a 3.0 or better quality point average at The University of North Carolina at Wilmington, and who is recommended by the chairman of the area in which he is concentrating, is eligible for admission to the Honors Program. This program involves independent study in the area of concentration, a paper reporting the results of the study, and an oral examination. Honors work is not intended to replace any specifically required course.

A student who enters the Honors Program will be required to complete six semester hours of honors work in the field of concentration during the last three semesters, with a maximum of three semester hours credit in any one semester. The Honors Program may be entered either at the beginning of the second semester of the junior year (on completion of 74 semester hours) or at the beginning of the first semester of the senior year.

In order to graduate with honors, a student must successfully complete the program and have a 3.0 quality point average over all college work at the time of graduation. A student who does not retain an overall average of 3.0, however, may still receive credit for the honors project.

SUMMER SCHOOL

The Summer Sessions constitute an integral part of the university's academic year. Students may take advantage of specially designed programs, such as marine archaeology, Biblical archaeology in Israel, and the Latin America experience. There are a variety of courses offered for students who wish to accelerate their progress toward the baccalaureate degree, to supplement the academic load carried during the regular terms, or to remove deficiencies.

Full information concerning the Summer Sessions may be obtained by contacting the director.

CONTINUING EDUCATION

The Office of Continuing Education serves as the coordinator, convener and catalyst for a variety of educational and service oriented activities throughout southeastern North Carolina. Part of its task is to develop an awareness of the continuing education needs of the community by working closely with business, industry, educational institutions, service organizations, social service agencies, government agencies, civic groups, and individuals.

Persons participating in university activities through the Continuing Education Program are subject to all the policies and academic regulations of the university. Applicants are admitted entirely on the basis of their academic qualifications and without reference to national origin, creed, color or sex.

REGISTRATION OF ADULTS AS SPECIAL STUDENTS

Persons who wish to enroll as special non-degree students or college graduate special students should do so through the Office of Continuing Education. (Regular degree candidates and audit students register through the Office of Admissions.)

(a) SPECIAL NON-DEGREE STUDENTS

Students who enroll in the special non-degree category are not formally admitted to the university as degree candidates.

Special non-degree students may take any course listed in the university's schedule of classes. They are limited to two courses per semester or per summer term. They must honor any prerequisite listed in the course description section of the catalogue. Academic credit is granted for courses successfully completed.

To be eligible for admission as a special non-degree student, one must meet the following requirements:

1. The candidate must have acquired a high school diploma.
2. The candidate must be at least 21 years of age.
3. The candidate must not have been suspended from a college or university within the past three years.
4. The candidate must not be classified as a degree student at The University of North Carolina at Wilmington.

It is possible for a special non-degree student to complete many of the required courses for the first two years of a degree program. All of these courses carry resident academic credit which, if applicable, may be transferred to a degree program by meeting the following requirements and procedures:

A special non-degree student who has never attended an institution of higher education may apply to the Admissions Office for admission as a regular degree candidate when he or she has completed a minimum of twelve semester hours with an overall "C" average. A special non-degree student who has attended another institution may apply for admission as a regular degree candidate after consultation with the Admissions Office. To avoid delay in having applications considered for admission as regular students, special non-degree students are advised to have transcripts from all institutions previously attended forwarded to the Admissions Office well in advance of the semester for which they wish to apply.

Since the maximum number of semester hours allowed in the special non-degree program is 27, students are advised to apply for admission as regular degree candidates early in the semester in which this maximum number of hours is to be attained.

(b) COLLEGE GRADUATES

Any individual who already possesses a college degree and who wishes to enroll for a course at the university at Wilmington should register through the Office of Continuing Education. (Any individual with a degree who wishes to work toward a second baccalaureate degree should consult the Office of Admissions.)

College graduate special students may take any course listed in the university's schedule of classes. They are permitted to elect up to 18 hours per semester; more than that requires the special permission of the Academic Dean.

They must honor any prerequisite listed in the course description section of the catalogue.

PROGRAMS AND SERVICES FOR BUSINESS AND INDUSTRY

The university through the Office of Continuing Education is prepared to offer a variety of short courses, conferences, and workshops designed specifically for business and industry. These activities may be conducted either by this university's faculty and staff or by individuals from other universities or organizations. The activities may include programs in communication, management, supervision, small business administration, computer programming, and other topics. Activities may be either custom designed for a specific business or industry or offered to the entire community as a regularly scheduled event.

The university at Wilmington works closely with other institutions in the University of North Carolina system in an attempt to bring programs or activities not available on this campus to southeastern North Carolina.

PROGRAMS AND SERVICES TO PUBLIC ORGANIZATIONS

The university is vitally interested in assisting public organizations (municipal, county, state, and federal) with their training and educational programs. A variety of continuing education activities including credit courses, noncredit short courses, workshops, conferences, and seminars are offered to public organizations.

PROGRAMS AND SERVICE TO SCHOOL SYSTEMS

The university is prepared to assist school systems with their programs for the professional improvement of teachers. Courses can be designed to meet certification renewal requirements and to provide general training for teachers and administrators.

Continuing education activities may include courses or training in all of the academic disciplines offered at the university. Many activities can be designed to meet the needs of a specific school or school system.

PROGRAMS AND SERVICE TO THE GENERAL PUBLIC

The Office of Continuing Education arranges a full schedule of community interest programs during each academic year simply to help people learn something new and to contribute to personal enrichment.

These activities include speakers, discussion groups, short courses, workshops, and conferences. The topics range from local problems to international affairs.

The Office of Continuing Education coordinates the "Great Decisions" program during February and March of each year. This program, sponsored and developed by the American Foreign Policy Association, is a discussion group activity which includes eight topics of international interest. It is a non-credit activity open to the public.

UNIVERSITY EXTENSION PROGRAM

In an effort to reach beyond the bounds of the campus, the university offers, through the Office of Continuing Education, a number of freshman and sophomore level courses on the campuses of three regional technical institutes. The institutes involved

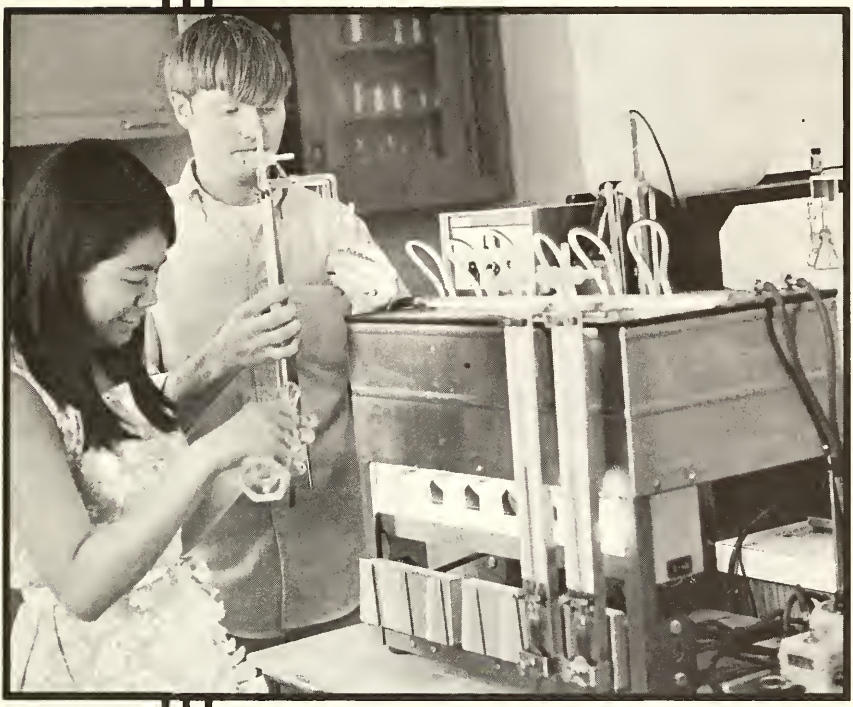
in this program are James Sprunt Institute in Kenansville, Bladen Technical Institute in Dublin, and Sampson Technical Institute in Clinton, North Carolina.

The institutes are responsible for recruiting and enrolling students in this program. Only those students who are high school graduates or the equivalent may be enrolled for academic credit in the extension program of the university.

All requests for transcripts for university extension courses should be forwarded to the Registrar of the University of North Carolina at Wilmington.

Students without previous college credit may be admitted to the university upon completion of 12 semester hours of credit if they have maintained a "C" average. Students with previous college credit must have a "C" average on all hours attempted in order to be admitted to the university.

Further information concerning the Continuing Education Program may be obtained by contacting the director.



DESCRIPTION OF COURSES

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This section contains a listing of all the courses offered by each academic department. Not all of the courses listed are necessarily offered within a single academic year. For a listing of the courses actually offered during a given semester, see the course schedule which is printed for that semester. This schedule lists the time, place and instructor for each course offered during the semester. Copies may be obtained in the Office of the Registrar.

"Trial" courses may be offered on a one-time basis. Numbers used to designate these special courses are 292 and 492. These courses are not listed in the catalogue, but description information is on file in the Office of the Registrar.

A hyphen connecting courses (e.g. 201-202) indicates that the first course in the sequence must be satisfactorily completed prior to registration in the second course of the sequence. When course numbers are separated by a comma (e.g. 201, 202), the first course is not necessarily prerequisite to those following. The semester hours credit for each course is indicated in parentheses following the course title.

ACCOUNTING

(See Business and Economics)

ANTHROPOLOGY

(See Socioloy and Anthropology)

ARABIC

(See Modern Languages)

ART

Mr. Howell, *chairman*. Miss Conner, Mr. Goins.
A small fee will be charged for some studio courses to cover cost of supplies.

105 Painting Techniques (1)
Painting in various media: oil, acrylic, watercolor, etc. Two hours each week. May be repeated indefinitely. Accumulative credit limited to two hours.

106 Three-Dimensional Form Techniques (1)
Three-dimensional form with emphasis on sculpture and ceramics. Two hours each week. May be repeated indefinitely. Accumulative credit limited to two hours.

107 Drawing Techniques (1)
Drawing in various media: charcoal, ink, polymer, etc. Two hours each week. May be repeated indefinitely. Accumulative credit limited to two hours.

111-112 Beginning Life Drawing (3-3)
Drawing from the model in various media: pencil, charcoal, ink, etc. Six studio hours each week. Fee charged.

141-142 Two-Dimensional Design (2-2)
Fundamentals of design. One lecture and four studio hours each week.

143-144 Three-Dimensional Design (2-2)
Study of three-dimensional form to give the general art student a feeling for plastic awareness. One lecture and four studio hours each week.

201,202,203 Art History and Appreciation (3,3,3)
Survey of the general periods of art from prehistoric to modern. 201: Ancient World. 202: Middle Ages and Renaissance. 203: Modern World. Three hours each week.

208 Technical Skills (1)
Prerequisite: At least two different studio courses. Basic skills related to the arts: framing, matting, crating, etc. One studio hour each week.

211-212 Intermediate Life Drawing (3-3)
Prerequisite: Art 112 or permission of instructor. Drawing from the model in various media: pencil, charcoal, ink, etc. Six studio hours each week. Fee charged.

221-222 Beginning Ceramics (3-3)
Introduction to three-dimensional form and design in the manipulation of clays and glazes; basic techniques and approaches. One lecture and six studio hours each week. Fee charged.

231-232 Beginning Printmaking (3-3)
Prerequisite: Art 141 or 111 or permission of instructor. Problems in relief and intaglio using a variety of materials. One lecture and six studio hours each week. Fee charged.

241-242 Beginning Painting (3-3)
Prerequisite: Art 142 or consent of instructor. Emphasis on technique and expression. One lecture and six studio hours each week.

251-252 Beginning Sculpture (3-3)
Prerequisite: Art 144 or consent of instructor. Three-dimensional form in clay and plaster; basics of modeling and casting abstract and life forms. One lecture and six studio hours each week. Fee charged.

261-262 Beginning Crafts (3-3)
Prerequisite: Art 141 or consent of instructor. Beginning study of materials and techniques. Work primarily in Jewelry Design, including fabrication, casting and enameling. Work in other areas upon request and with consent of instructor. One lecture and six studio hours per week. Fee charged.

281-282 Color (3-3)
Prerequisite: Art 142 or consent of instructor. Acrylic, oil, watercolor, and gouache; problems in the interrelationship of colors. One lecture and six studio hours each week.

306 Italian Renaissance Art History (3)
Study of the development of art in Italy, 1000-1500 A.D. Emphasis on painting. Sculpture and architecture included as related to Renaissance concepts of thought.

311-312 Advanced Life Drawing (3-3)
Prerequisite: Art 212 or consent of instructor. Drawing in various media: conté, charcoal, ink, etc. Six studio hours each week. Fee charged.

321-322 Intermediate Ceramics (3-3)
Prerequisite: Art 222 or consent of instructor. Continuation of three-dimensional forms and design in manipulation of clays and glazes; basics of kiln construction and chemistry of glazes. One lecture and six studio hours each week. Fee charged.

331-332 Intermediate Printmaking (3-3)
Prerequisite: Art 232 or consent of instructor. Further exploration of printmaking techniques in relief, intaglio, silk screen. One lecture and six studio hours each week. Fee charged.

341-342 Intermediate Painting (3-3)
Prerequisite: Art 242 or consent of instructor. Further exploration of technique and expression. One lecture and six studio hours each week.

351-352 Intermediate Sculpture (3-3)
Prerequisite: Art 252 or consent of instructor. Three-dimensional form in plaster, ceramics and metals. One lecture and six studio hours each week. Fee charged.

361-362 Intermediate Crafts (3-3)
Prerequisite: Art 262 or consent of instructor. Further explanation of materials and techniques used in various crafts media with an emphasis on show quality pieces. One lecture and six studio hours per week. Fee charged.

385 Art in the Elementary School (3)
Appreciation of art designed for elementary teachers, including studio work and art educational theory. One lecture and three studio hours each week. Fee charged.

411-412 Advanced Drawing (3-3)
Prerequisite: Art 312 or consent of instructor. Drawing with a variety of techniques and media. Six studio hours each week. Fee charged.

421-422 Advanced Ceramics (3-3)
Prerequisite: Art 322 or consent of the instructor. Further experience in three-dimensional form and design and emphasis on kiln construction and theory; physical and chemical properties of clays and glazes including the empirical method of glaze calculation. One lecture and six studio hours each week. Fee charged.

431-432 Advanced Printmaking (3-3)
Prerequisite: 332 or consent of instructor. Further exploration of printmaking techniques in relief, intaglio, silk screen, lithography and collograph. One lecture and six studio hours each week. Fee charged.

441-442 Advanced Painting (3-3)
Prerequisite: Art 342 or consent of instructor. Emphasis on techniques and expression. One lecture and six studio hours each week.

451-452 Advanced Sculpture (3-3)
Prerequisite: Art 353 or consent of instructor. Continuation of study of form with emphasis on casting and welding of metals. One lecture and six studio hours each week. Fee charged.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

For 292 and 492, see explanation on p. 104.

BIOLOGY

Dr. Sieren, *chairman*. Mr. F. Allen, Dr. Bane, Dr. Biggs, Mr. Chapman, Mr. Cockerham, Mr. Davis, Mr. Dermid, Dr. George, Dr. Fugler, Dr. Hosier, Dr. Kapraun, Dr. Lindquist, Dr. Lundeen, Dr. McCrary, Dr. Merritt, Dr. Padgett, Dr. Parnell, Mrs. Pittman, Dr. Plyer, Dr. Roye.

105 Concepts of Modern Biology (4)
An introduction to the diversity of life and the unifying principles that bring order to that diversity. Some of the concepts discussed include the nature of life, energy relationships, reproduction and development, inheritance, evolution of life, behavior of animals, and ecology and the environment. Multi-media instructional materials are used. A Student Learning Center provides opportunity for tutorial and audio-visual supplementary instruction. Three lecture and three laboratory/discussion hours each week.

205 Plant Biology (4)
Prerequisite: Biology 105. Classification, morphology, physiology, and ecology of seed plants with introductory survey of algae, fungi, bryophytes, and lower vascular plants. Three lecture and three laboratory hours each week.

206 Animal Biology (4)
Prerequisite: Biology 105. Classification, morphology, physiology, and ecology of animals. Three lecture and three laboratory hours each week.

215 (Physical Education 215) Anatomy and Physiology (4)
Prerequisite: Credit in Biology or consent of instructor. Brief introduction to major biological principles as applied to study of human anatomy and physiology. Three lecture and three laboratory hours each week.

225 Bacteriology (3)
Prerequisite: Credit in Biology. Open only to nursing students. Bacteria and related organisms; laboratory work in common bacteriological techniques. Two lecture and three laboratory hours each week.

235 Genetics in Human Affairs (3)
Prerequisite: Biology 105. A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing an understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included. Three hours each week.

315 Comparative Vertebrate Anatomy (4)
Prerequisite: Biology 206. Comparative morphology and phylogenetic interrelationships of vertebrate animals; representative organisms dissected in laboratory. Three lecture and three laboratory hours each week.

316 Vertebrate Embryology (4)
Prerequisite: Biology 206. Fundamental principles of embryonic development of vertebrate animals; frog, pig and chick emphasized. Three lecture and three laboratory hours each week.

335 Genetics (3)
Prerequisite: Biology 105. Principles of Mendelian heredity, linkage, mutation, population genetics, and gene action. Three hours each week.

335-51 Genetics Laboratory (1)
Prerequisite: Biology 105; *corequisite:* Biology 335. Demonstration of basic heredity principles through study of *Drosophila* and other genetic systems. Three laboratory hours each week.

345 Animal Physiology (4)
Prerequisite: Biology 206 and Chemistry 102. Comparative study of physiological processes in different organisms approached through study of tissues, organs, and systems. Three lecture and three laboratory hours each week.

347 Cell Physiology (3)
Prerequisite: Biology 105 and Chemistry 102. Chemistry 311-312 is recommended. Chemical and physical properties of cells. Emphasis on molecular biology and experimental biological systems used to elucidate cellular function. Three lecture hours each week.

347-51 Cell Physiology Laboratory (1)
Prerequisite or corequisite: Biology 347. Experiments demonstrating basic phenomena underlying cellular function using *Chlamydomonas* and other systems. Three laboratory hours each week.

355 Plant Physiology (4)
Prerequisite: Biology 205. A study of the role of the environment in plant physiological processes. Topics include energy fixation and utilization, physiological stress, physiological adaptation, and plant interactions. Three lecture and three laboratory hours each week.

356 Vertebrate Natural History (4)
Prerequisite: Biology 206. Identification, classification, and life histories of common vertebrate animals of eastern North Carolina with emphasis on field work. Two lecture and four laboratory hours each week.

357 Herpetology (3)
Prerequisite: Biology 206. A study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Two lecture and three laboratory hours each week. 1976-77 and alternate years.

358 Ichthyology (4)
Prerequisite: Biology 206. The systematics, evolution, and natural history of fishes, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

362 Marine Biology (4)
Prerequisite: Biology 205 and 206. Marine biota and their relationship to the oceanic environment. Two lecture and four laboratory hours each week.

365 Invertebrate Zoology (4)
Prerequisite: Biology 206. Invertebrate organisms with emphasis on structure, function, taxonomy, phylogeny, and life histories. Three lecture and three laboratory hours each week.

366 Ecology (4)
Prerequisite: Biology 205 and 206. Ecological principles pertaining to both plants and animals. Two lecture and four laboratory hours each week.

370 Tropical Biology (3)
Prerequisite: Biology 205 and 206 or consent of instructor. Study of the geography, climate, plant communities, diseases, and geographic distribution and ecology of the major animal taxa of the neo- and paleotropics. Recommended for all students planning to enroll in Field Studies in Tropical Biology. Three lecture hours each week. 1977-78 and alternate years.

375 Plant Morphology (4)
Prerequisite: Biology 205. Morphological survey of algae, fungi, bryophytes, lower vascular plants, and seed plants with emphasis on life histories, classification, and identification. Three lecture and three laboratory hours each week.

377 Mycology (4)
Prerequisite: Biology 105. Taxonomy, morphology, physiology and ecology of fungi. Three lecture and three laboratory hours each week. One weekend field trip required.

395 Methods of Biological Research (2)
Prerequisite: Biology 205 or 206 and one course in Mathematics (Mathematics 111 is recommended.) An introduction to the scientific method, hypothesis construction, design of experiments, data gathering techniques, and data analysis as it pertains to the biological sciences. The use of the computer as a tool in Biology will be practiced. Two hours each week.

425 Microbiology (4)
Prerequisite: Biology 205 or 206. Nonpathogenic and pathogenic organisms; microscopic study; culture and staining methods. Two lecture and four laboratory hours each week.

446 Phycology (4)
Prerequisite: Biology 205. An introductory survey of algal groups including benthic and planktonic freshwater and marine representatives in local environments. Morphology, life histories, and ecology are emphasized. Collection and preservation techniques are demonstrated. Three lecture and three laboratory hours each week.

456 Ornithology (4)
Prerequisite: Biology 206. An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

458 Fisheries Biology (4)
Prerequisite: Biology 358, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, migration, and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

465 (Chemistry 465) Biochemistry (3)
Prerequisite: Chemistry 312. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; bio-energetics, regulatory mechanisms. Three hours each week.

466 Advanced Ecology (4)
Prerequisite: Biology 366. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

467 (Chemistry 467) Biochemical Methodology (3)
Prerequisite or *corequisite:* Biology 465 or Chemistry 465. A laboratory course dealing with the techniques and methodology of modern biological chemistry. Topics include radiochemical tracer studies, various types of chromatography, organelle isolation, enzymology, isolation and assay procedures for various biological molecules. One lecture and five laboratory hours each week.

468 Planktonology (4)
Prerequisite: Biology 365 or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

470 Ecology of Human Populations (3)
Prerequisite: Biology 345 and 455 or 466. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles. Three hours each week. 1976-77 and alternate years.

475 Plant Taxonomy (4)
Prerequisite: Biology 205. Identification, classification, and phylogeny of vascular plants with emphasis on flora of eastern North Carolina. Field trips. Two lecture and four laboratory hours each week.

485 Special Topics in Advanced Biology (1-6)
Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

1. Marine Phycology. *Prerequisite:* Biology 205. An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction.
2. Marine Invertebrate Zoology. *Prerequisite:* Biology 206. A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups.
3. Field Studies in Tropical Biology. *Prerequisite:* Biology 105, 205, 206, and consent of instructor. Biology 370 is recommended. A research-oriented field course offered in selected areas of the tropical world. Emphasis is placed on distribution, taxonomy, and ecology of marine, aquatic, and terrestrial organisms.

491 Directed Individual Study (1-3)
Prerequisite: Biology 395, junior or senior standing, consent of instructor, and consent of department chairman.

495 Seminar (1-3)
Prerequisite: Junior or senior standing and consent of instructor. Individual reports and group discussions of the results of student field, laboratory and/or library research on selected topics in Biology.

499 Honors Work in Biology (2-3)
Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

BUSINESS AND ECONOMICS

Dr. Kaylor, *chairman*. Mr. Anderson, Mr. Appleton, Mr. Burke, Mr. Clark, Mr. Cooper, Mr. Dunn, Dr. Farrell, Dr. Hall, Dr. Harper, Dr. Hill, Mrs. Knox, Dr. West.

ACCOUNTING

201-202 Principles of Accounting (3-3)
Prerequisite: Mathematics 121 or consent of instructor. Preparation of financial records, working papers, statements of financial position, income statements, and statements of changes in financial position. ACG 201 emphasizes financial accounting; ACG 202 emphasizes managerial uses of accounting.

301-302 Intermediate Accounting (3-3)
Prerequisite: Accounting 202. Analysis of the theory, concepts, principles and procedures underlying the preparation of financial statements for external reporting in light of current issues and practices.

305 Cost Accounting (3)
Prerequisite: Accounting 202. Costs for planning and control, including the role of the accountant in the organization; cost behavior and volume-profit relationships; responsibility accounting; standard costs; flexible budgets; cost structures for control and motivation; and relevant costs for nonroutine decisions.

306 Accounting for Management and Control (3)
Prerequisite: Accounting 202. The study of how accounting data can be analyzed, interpreted, and used by management in planning and controlling business activities. Emphasis is on the analysis of accounting data rather than the collecting and recording functions. Not open to students concentrating in accounting.

308 Income Tax Accounting (3)
Prerequisite: Accounting 202. Principles of federal and state income taxes as related to individuals, partnerships, and corporations; the history and development of taxation, and special income tax problems.

401 Accounting for Business Combinations (3)
Prerequisite: Accounting 301-302. A study of accounting problems in mergers and consolidations, parent-subsidiary interrelationships, branch and foreign operations. Emphasis on consolidated financial statements.

402 Specialized Accounting Problems (3)
Prerequisite: Accounting 301-302. The application of accounting theory to specialized problems, including partnerships, fiduciary relationships, bankruptcy and reorganization, liquidation, government entities and other non-profit service entities.

403 Administrative Accounting and Control (3)
Prerequisite: Accounting 305 or Accounting 306. The controllership function and analytical methods to serve the information needs of decision making and control; advanced topics in cost accounting, forecasting, budget design and preparation, and responsibility accounting.

407 Auditing (3)
Prerequisite: Accounting 301-302. Objectives, standards and procedures involved in examining and reporting on financial statements of business organizations by independent auditors in light of ethical and legal obligations.

408 Contemporary Accounting Theory (3)
Prerequisite: Accounting 301-302 and consent of instructor. Analysis and evaluation of current accounting thought relating to nature, measurement, and reporting of business income and financial condition.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Accounting (2-3)
Prerequisite: Senior standing. Independent work for honors students.

Business Administration

206 Computer Applications in Business (3)
Prerequisite: Mathematics 121 and Accounting 201. The vocabulary necessary to communicate with the computer, including an introduction to programming using the BASIC and FORTRAN languages. Computer applications in the fields of accounting, economics, and other business disciplines.

235 Personal Finance (3)
Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings, and investments. Recommended elective for non-business majors.

301 (Economics 301) Statistical Analysis for Business and Economics (3)
Prerequisite: Mathematics 121 and Economics 251, 252. Classification and presentation of business and economic data, statistical inference including estimation and hypothesis testing procedures, Bayesian inference, correlation and regression analysis, time series and index numbers.

302 (Economics 302) Operations Research (3)
Prerequisite: Mathematics 121-122 and Business 301. Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control, game theory, queuing, and Markov chains.

310 Business Communications (3)
Prerequisite: English 102, Accounting 202 and Economics 251. Fundamentals of effective business communication with emphasis on writing business letters, papers, and reports.

335 Business Finance (3)
Prerequisite: Accounting 306 and Economics 251. An introduction to the finance function of business enterprises and to the analytical techniques used in making investment and financing decisions. Brief review of financial analysis, planning and control. Emphasis is on decisions involving working capital, long-term assets, long-term financing, and financial leverage.

345 Marketing (3)
Prerequisite: Accounting 202 and Economics 251. Basic functions, institutions, and problems involved in the distribution of goods and services. Emphasis is upon integrating the managerial approach with the behavioral concepts of the marketing process.

346 Retailing (3)
Prerequisite: Accounting 202 and Economics 251, 252. Principles and methods of retailing in relation to its economic environment, store location, layout, organization, operation, merchandising, purchasing, pricing, sales promotion and managerial control.

347 Advertising Management (3)
Prerequisite: Business 345 or consent of instructor. An interdisciplinary approach to the ethical, social and economic roles of advertising. Emphasis is upon the why in copywriting, illustration, layout, media selection, budgeting, and evaluation of advertising planning and effectiveness.

348 Sales and Sales Management (3)
Prerequisite: Business 345 or consent of instructor. Planning, organizing, directing, and controlling sales operations. Emphasis is on the functions and problems of the sales executive.

349 Consumer Behavior/Marketing Research (3)
Prerequisite: Business 301 and Business 345 or permission of instructor. The integration and application of the behavioral sciences in the marketing-decision system. Emphasis is placed on ways of gathering, processing, and analyzing information from the marketplace. Particular attention is placed on the effect of personality, interpersonal associations, and environmental factors on consumer behavior.

355 Principles of Management (3)
Prerequisite: Accounting 202 and Economics 251, 252. Managerial principles and practices universally applicable in the planning, organizing, staffing, motivating, and controlling of human and economic resources. The historical development of management thought is an integral part of the course.

356 Personnel Management (3)
Prerequisite: Business 355 or consent of instructor. An examination and evaluation of the concepts and principles used by the business and nonbusiness organization in human resource management. The course is designed to provide the broad understanding needed by supervisors and executives rather than personnel managers.

357 Operations Management (3)
Prerequisite: Business 302 or consent of instructor. An introduction to the operation function of product and service enterprises and to the concepts of modern analytical techniques used to design and control quantity, quality, and cost of output from the productive activities. Applications to non-manufacturing organizations are considered but emphasis is on the manufacturing enterprise.

358 Organizational Behavior (3)
Prerequisite: Business 355 or consent of instructor. An evaluation of the behavioral science concepts and principles applicable to organizations. The objective is to broaden the student's understanding of human behavior in the work place and to explain how such behavior can be channeled toward desirable goals for both the individual and the organization.

360 Real Estate (3)
Prerequisite: Consent of instructor. Principles of property management and practices relating to appraisal, sales, ownership, control, financing, and transfer of real property.

365 Risk Management and Insurance (3)
An introduction to the risk management function and to the basic methods used to handle risks facing the business enterprise, families, and individuals. Emphasis is on the insurance method of handling risk with study of the concepts underlying insurance, the fundamentals of insurance contracts, and a broad selection of policy coverages in the property and liability, and life and health fields.

370 Transportation (3)
Introductory analysis of the five domestic modes of the transportation industry. The basic theoretical principles of transportation economics and carrier-shipper interactivity are evaluated together with the application of such principles to relevant market conditions. Also synthesized are carriers', shippers', and labor's efforts to improve the industry's productivity.

406 Business Information Systems (3)
Prerequisite: Business 206 and Business 355. A study of basic systems concepts and information concepts and their application to the analysis, design, implementation, and evaluation of computer-based business information systems.

435 Investments (3)
Prerequisite: Business 335 or consent of instructor. An examination of the major outlets for individual investment funds including corporate and U. S. government securities. Major emphasis is placed on common stock analysis and evaluation and portfolio management. In addition, the securities market as an institution is examined along with the various theories of market performance.

436 Financial Management (3)
Prerequisite: Business 335. Financial analysis and decision making in the modern business organization. Theoretical foundations of financial decision making are emphasized including both working capital and fixed capital requirements.

445 Marketing Management (3)
Prerequisite: Business 345 and senior standing. Concepts in demand analysis, coordinating marketing action, determining and evaluating policies and procedures, use and evaluation of research.

446 (Economics 446) International Trade and Finance (3)
Prerequisite: Accounting 202, Economics 251, 252, or consent of instructor.
A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates, and balance of payments problems.

453 Management of Small Business (3)
Prerequisite: Business 335 and Business 355 or consent of instructor. A study of the special problems, analysis, and decision making involved in the development and management of small business. Emphasis on the professional small business manager and entrepreneur.

455 Business Policy (3)
Prerequisite: Business 302, 310, 335, 345, 355, 357 and senior standing. Capstone course integrating the functions and policies of business decision making at the policy making level of management. Case study method is used.

461-462 Business Law (3-3)
Prerequisite: Junior or senior standing or consent of instructor. Origin, nature, and classification of the law; state and national court systems; legal environment of business; contracts and negotiable instruments; agency, business organization; sales, warranties and security interests; personal and real property; estates and wills; and environmental law.

470 Transportation Management (3)
Prerequisite: Business 355 or consent of instructor. An overview of the relationship of management principles and concepts to the transportation industry (five modes) as the major component of the seven primary physical distribution activities (decision centers). Both domestic and international aspects are included.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar (1-3)
Prerequisite: Senior standing and consent of instructor. Special topics in management and marketing not regularly dealt with in other courses.

499 Honors Work (2-3)
Prerequisite: Senior standing. Independent work for honors students.

Economics

105 Survey of Economics (3)
An introduction to economic principles for non-business and non-economics majors. Current analysis rather than theoretical analysis is utilized to present and show the relevance of economic principles. Not open to students concentrating in Accounting, Business Administration, or Economics.

251 Principles of Economics (Micro) (3)
Prerequisite: Mathematics 121-122. Analysis of decision-making processes and economic equilibrium for the individual firm and consumer at an introductory level.

252 Principles of Economics (Macro) (3)
Prerequisite: Mathematics 121-122. Aggregate economic analysis examining the effects of fiscal and monetary policy upon aggregate employment, income, and prices at an introductory level.

301 (Business 301) Statistical Analysis for Business and Economics (3)
Prerequisite: Mathematics 121 and Economics 251, 252. Classification and presentation of business and economic data, statistical inference including estimation and hypothesis testing procedures, Bayesian inference, correlation and regression analysis, time series and index numbers.

302 (Business 302) Operations Research (3)
Prerequisite: Mathematics 121-122, and Economics 301. Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control game theory, queuing, and Markov chains.

305 (Environmental Studies 305) Environmental Economics (3)
Prerequisite: Economics 105, 251, or 252 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives.

315 Intermediate Price Theory (3)
Prerequisite: Economics 251, 252. A theoretical analysis of individual consumer and firm behavior and general equilibrium.

316 National Income Analysis (3)
Prerequisite: Economics 251, 252. A theoretical analysis of the determination of aggregate income, aggregate employment, and the average price level and the role of monetary and fiscal policy in the determination of such.

327 Money and Banking (3)
Prerequisite: Economics 251, 252. A theoretical and empirical analysis of the effects of money on aggregate income and employment and the average price level. Analysis of the tools and policy of the Federal Reserve. An overview of banks and other financial intermediaries.

336 Financial Institutions (3)
Prerequisite: Business 335 or consent of instructor. An examination of the workings of the money and capital markets including the manner in which financial institutions and markets play a role in the transmission of macro-financial policy actions to various sectors of the economy. The impact of these macro variables on the internal financial manager.

338 Public Finance (3)
Prerequisite: Consent of instructor. Study of state, local, and federal government revenues and expenditures: (1) Facts of public revenues and expenditures; (2) Theory of public sector-social goods, social balance, and fiscal neutrality; (3) Methods of achieving efficiency in government—Benefit-cost analysis, Program budgeting (PPB), and pricing of government services.

401 History of Economic Thought (3)
Prerequisite: Economics 315, 316 or consent of instructor. Scientific economic thought and philosophy from ancient to modern times. Open-ended as to dates of time period covered. Primary emphasis is on topics as opposed to schools of thought.

417 Introductory Econometrics (3)
Prerequisite: Business 301 and Economics 315 or 316. An introduction to the formalization of economic hypotheses into testable relationship and the application of appropriate statistical techniques. Theoretical aspects are covered, but primary emphasis is on computer application utilizing regression analysis.

420 Managerial Economics (3)
Prerequisite: Economics 315 and Economics 301. Economic theory of the firm, mathematical models of the firm; the internal decision-making process.

426 Comparative Economic Systems (3)
Prerequisite: Consent of instructor. Analysis of economic systems operating under capitalism, socialism, communism, and fascism; institutions and organization of production and government; decision-making; distribution of income; problems of developing nations.

427 Labor Economics (3)
Prerequisite: Economics 251, 252. An analysis of the demand for and the supply of labor at the individual and the aggregate level, labor unions and collective bargaining.

428 Regional Growth and Development (3)
Prerequisite: Economics 251, 252. Theories of subnational or regional economic growth. Measures of regional economic growth. Policies to alleviate problems resulting from disparate rates of regional economic growth.

446 (Business 446) International Trade and Finance (3)
Prerequisite: Accounting 202, Economics 251, 252 or consent of instructor. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates and balance of payments problems.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar in Economics (1-3)
Prerequisite: Economics 315, 316 and consent of instructor. An examination of current problems in economics organized on a discussion-research basis. The content of the course will vary as changing conditions require the use of new approaches to deal with current issues.

499 Honors Work (2-3)
Prerequisite: Senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 104.

Chemistry

Dr. Levy, *chairman*. Dr. L. Adcock, Dr. Cahill, Dr. Hart, Dr. Hornack, Dr. Martin, Dr. Nance, Dr. Sayed.

101-102 General Chemistry (3-3)
Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Normally taken concurrently with General Chemistry Laboratory (101-51, 102-51). Three hours each week.

101-51, 102-51 General Chemistry Laboratory (1-1)
Prerequisite or corequisite: Chemistry 101-102. Introduction to techniques and equipment in the chemistry laboratory; interpretation of experimental results. Quantitative and qualitative analysis included. Three laboratory hours each week.

107 Physical Science for Nurses (4)
A one-semester course designed for nursing students. Three lecture and three laboratory hours each week.

311-312 Organic Chemistry (3-3)
Prerequisite: Chemistry 102 and 102-51. Introduction to the chemistry of carbon compounds, including structural theory, synthesis, and reaction mechanisms. Normally taken concurrently with Organic Chemistry Laboratory (311-51, 312-51). Three hours each week.

311-51, 312-51 Organic Chemistry Laboratory (1-1)
Prerequisite or corequisite: Chemistry 311-312. Three laboratory hours each week.

315-316 Advanced Techniques of Organic Chemistry (1-1)
Prerequisite or corequisite: Chemistry 311-312 and 311-51, 312-51. Theory and practice of chromatographic methods of separation and spectroscopic methods of identification. Three laboratory hours each week.

321 Physical Chemistry (3)
Prerequisite: Chemistry 102, Physics 202, and Mathematics 213. Chemical thermodynamics, reaction kinetics, and introduction to statistical mechanics. Three hours each week.

322 Physical Chemistry (3)
Prerequisite: Chemistry 102, Physics 202, Mathematics 213. Introduction to quantum mechanics with applications to the structure of atoms and molecules. Spectroscopy, statistical mechanics, and elementary nuclear and solid state theory. Three hours each week.

321-51, 322-51 Physical Chemistry Laboratory (1-1)
Normally taken concurrently with Chemistry 321 and 322, respectively. Three laboratory hours each week.

325 Brief Physical Chemistry (3)
Prerequisite: Chemistry 102 and one sequence in Physics. An abbreviated course in fundamentals of physical chemistry. Normally taken concurrently with Brief Physical Chemistry Laboratory (325-51). May not be taken for credit after 321 has been passed. Three hours each week.

325-51 Brief Physical Chemistry Laboratory (1)
Prerequisite or corequisite: Chemistry 325. Two laboratory hours each week.

333 (Environmental Studies 333) Analytical Chemistry in Environmental Problems (2)
Prerequisite: Chemistry 102 and 102-51. The theory of (a) sampling and sample preparation (air, water, etc.), (b) selective methods of quantitative gravimetric and volumetric analysis, (c) instrumental techniques, and (d) monitoring systems. Normally taken concurrently with Analytical Chemistry Laboratory in Environmental Problems (333-51). May not be taken for credit after 335 has been passed. Two hours each week.

333-51 (Environmental Studies 333-51) Analytical Chemistry Laboratory in Environmental Problems (2)
Prerequisite or corequisite: Chemistry 333 or 335. Four laboratory hours each week.

335 Quantitative Analysis (2)
Prerequisite: Chemistry 102 and 102-51. Theory of gravimetric and volumetric techniques, with some introduction to instrumental analysis. Normally taken concurrently with Quantitative Analysis Laboratory. May not be taken for credit after 333 has been passed. Two hours each week.

335-51 Quantitative Analysis Laboratory (2)
Prerequisite or corequisite: Chemistry 333 or 335. Four laboratory hours each week.

355 History and Literature of Chemistry (1)
Prerequisite: Junior standing. Introduction to chemical literature and sources of information and to the historical development of chemistry. One hour each week.

415 Advanced Organic Chemistry (3)
Prerequisite: Chemistry 312. Theoretical organic chemistry with emphasis on reaction mechanisms and special synthetic methods. Three hours each week.

435 Advanced Analytical Chemistry (2)
Prerequisite: Chemistry 333 or 335, 321-322, and their laboratories. Theory of modern analytical instrumentation and techniques. Normally taken concurrently with Advanced Analytical Chemistry Laboratory (435-51). Two hours each week.

435-51 Advanced Analytical Chemistry Laboratory (2)
Prerequisite or corequisite: Chemistry 435. Four laboratory hours each week.

445 Inorganic Chemistry (3)
Prerequisite: Chemistry 321-322. Advanced descriptive and theoretical inorganic chemistry. Three hours each week.

445-51 Inorganic Synthesis (1)
Prerequisite or corequisite: Chemistry 445. Synthesis and techniques in inorganic chemistry. Normally taken concurrently with Inorganic Chemistry (445). Three laboratory hours each week.

446 Advanced Inorganic Chemistry (3)
Prerequisite: Chemistry 445. Advanced topics in theoretical inorganic chemistry. Three hours each week.

465 Biochemistry (3)
Prerequisite: Chemistry 312. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; bioenergetics; regulatory mechanisms. Three hours each week.

467 Biochemical Methodology (3)
Prerequisite or corequisite: Biology 465 or Chemistry 465. A laboratory course dealing with the techniques and methodology of modern biological chemistry. Topics include radiochemical tracer studies, various types of chromatography, organelle isolation, enzymology, isolation and assay procedures for various biological molecules. One lecture and five laboratory hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar (1-3)
Prerequisite: Senior standing. Discussion of selected topics. One hour each week.

499 Honors Work in Chemistry (2-3)
Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

COMPUTER SCIENCE

(See Mathematical Sciences)

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA AND SPEECH

Dr. Rogers, *chairman*. Mrs. Fitzgibbon, Miss Gimple, Mr. Knowles, Mr. Swink, Mrs. Welch.

101 Stagecraft/Workshop (2)
Theatre stage orientation through the handling of scenery, properties, costumes and lights. Practical applications of theatre working in conjunction with weekly play production. Two four-hour sessions per week. Summer sessions only.

102 Stagecraft/Workshop (2)
Prerequisite: D&S 101 or consent of the instructor. Continued application of stage work in scenery, properties, costumes and lights in conjunction with weekly play production. Two four-hour sessions per week. Summer sessions only.

115 Fundamentals of Speech (3)
Principles and basic skills in speaking and listening; classroom exercise and discussion. Three hours each week.

116 Theory of Speech Communication (3)
Prerequisite: Drama and Speech 115 or consent of instructor. Orientation in the areas of speech. Analysis of content and delivery factors used in persuasive communication. Three hours each week.

170 Intercollegiate Debate (1)
Open to all students regardless of standing who participate in intercollegiate debate for up to eight hours of academic credit. One hour each week.

201 Stagecraft and Shop (2)
Basic principles of scenic materials and equipment. Use of materials, methods of construction and handling of scenery and properties. One lecture and three laboratory hours per week plus participation in the University Theatre productions required.

202 Stagecraft and Shop (2)
Prerequisite: 201 or consent of instructor. Practical training in workshop organization and technical production plus basic principles of theatrical graphics. One lecture and three laboratory hours each week plus participation in University Theatre productions required.

205 Stage Make-up (2)
Theory and practice in the application of make-up for theatrical performances. Four laboratory hours each week.

215 Oral Interpretation (3)
Analysis and practice in reading aloud before an audience a variety of literary selections. Three hours each week.

216 Voice and Diction (3)
Principles and use of the voice; exercises in vocal variety, articulation, and pronunciation. Three hours each week.

221, 222 History and Appreciation of the Theatre (3, 3)
Definitions and functions of the theatre in relationship to the cultures which produce it. 221: Greek Golden Age to Romantic Period. 222: Ibsen to the present. Three hours each week.

225 History and Appreciation of Film (3)
A survey through film of the development of motion picture from its primitive beginnings to the advent of sound film. A visual illustration of the basic aesthetic principles controlling film as art.

231 Acting I (4)
Prerequisite: Permission of instructor. Use of body and voice as instruments of expression; development of acting exercise structure with mind and breathing control practiced. Three class hours and 2½ laboratory hours each week.

232 Acting II (4)
Prerequisite: Acting I and/or permission of instructor. Continuing and expanding work on the use of body and voice. Further development of acting exercise structure with emphasis on improvisation and one scene study. Three class hours and 2½ laboratory hours each week.

270 Parliamentary Procedure (1)
Principles and rules governing deliberative assemblies. One hour each week.

275 The Art of Persuasive Speech (3)
Prerequisite: Drama and Speech 116 or consent of instructor. Power of speech as a tool to control thought processes of others in both negative and positive ways. Three hours each week.

305 Scenic Design (3)
Prerequisite: Drama and Speech 202 or consent of instructor. Play interpretation through the scenic elements. Problems in theatre graphics, technique applications, script interpretation, scenic design and style. Two class hours and two laboratory hours each week.

306 Stage Lighting (3)
Prerequisite: Drama and Speech 201 and/or 202 or consent of instructor. Basic techniques of theatrical lighting. Includes fundaments of electricity, lighting equipment, and the use of color. Two class hours and two laboratory hours each week.

307 Theatre Production (3)
Lectures and practical experience in all phases of production: staging, management, publicity, public relations, properties, house management, costumes, special effects and sound included. Deals with the responsibilities and actual duties of all personnel. Three lecture hours each week.

321-322 Theatre History (3-3)
321: Greek beginning to the Romantic Period. 322: 17th century through 19th century. Three hours each week.

325 Drama and Social Change (3)
Study of the patterns and results of social change on universal life as documented and portrayed in drama. Three hours each week.

333 Acting III (1-4)
Prerequisite: Acting I and II and/or consent of instructor. Scene study. A contractual course with individual student commitment concerning the number of scene studies to be attempted. Can be taken for up to four hours accumulative maximum.

345 Playwriting I (3)
Analysis of one-act plays and their construction; the writing of an original one-act play required. Three hours each week.

355 Directing I (3)
Fundamental principles of directing with emphasis on one-act productions. Three hours each week.

375 Group Discussion (3)
Prerequisite: Drama and Speech 115, 116, or consent of instructor. The study of and practice in oral group methodologies, including panel, forum, and symposium speaking. Three hours each week.

376 Debate (3)
Prerequisite: Drama and Speech 115, 170, or consent of instructor. Principles of argumentation and style in their application to formal debate; practice in conventional debate form on current national intercollegiate debate resolution. Three hours each week.

420 History of Rhetoric and Public Address (3)
A survey of the development of rhetorical principles and style as evidenced by significant historical personalities and the literary genre of public address. Three hours each week.

425 Aesthetics of Film (3)
A study of the various forms and content of film as controlled by the film director. The theoretical aspects of film as a work of art. Two class hours and two laboratory hours each week.

445 Playwriting II (3)
Prerequisite: Drama and Speech 345 or permission of instructor. Advanced techniques of playwriting with emphasis on full length play; the writing of an original full length play. Three hours each week.

455 Directing II (3)
Prerequisite: Drama and Speech 355. Advanced techniques in the direction of plays for the stage. Three hours each week.

461, 462 Seminar in Dramatic Theory (3,3)
Prerequisite: Senior standing or consent of instructor. Growth and results of dramatic theory on theatre. 461: Aristotle to Romantic Period. 462: Ibsen to the present. Three hours each week.

465 Mass Communications in Society (3)
A seminar encompassing the development of mass communications, the obligations of the press, radio, and television, the government and the right to know, censorship, invasion of privacy and other effects of mass communications. Three hours each week.

485 Senior Project (3)
Every major must choose a specific area in drama for a senior project. The proposal for planning and executing a public presentation in the chosen area must be submitted to the faculty of the Department of Drama and Speech for approval prior to the semester during which the project will be attempted.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Theatre/Communications Seminar (1-3)

499 Honors Work in Drama and Speech (2-3)
Prerequisite: Senior standing. Independent study for honors students.

For courses 292 and 492, see explanation on p. 104.

EARTH SCIENCES

Dr. Duncan Randall, *chairman*. Dr. Ainsley, Dr. Cleary, Mr. Dempsey, Dr. Harris, Dr. Thayer, Dr. Young, Dr. Zullo.

210 (Anthropology 210) Evolution of Man and the Development of Culture (3)
Critical analysis of the fossil evidence leading to current theories of human evolution. Examination and correleation of fossil remains and artifacts preserved in the geologic record as related to the anatomy and behavior of living human and non-human primate groups. Three lecture hours each week.

230 Earth Science Graphics (3)
Methods of graphic expression related to natural science in general; use of various media; methods of reproducing graphic works; introduction to aerial photography interpretation and basic map use. One lecture and four laboratory hours each week.

390 History of Earth Sciences (3)
Prerequisite: Junior standing with a departmental concentration or consent of the staff. Development of scientific thought in the earth sciences; study of the traditional backgrounds to modern research in earth sciences. Three hours each week.

490 Research in the Earth Sciences (3)
Prerequisite: Senior standing with a departmental concentration. Research on selected problems in the earth sciences. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Senior Seminar (1-3)
Prerequisite: Senior standing with a departmental concentration or consent of the staff. May be repeated one time for credit. One to three hours each week.

499 Honors Work in Earth Sciences (2-3)
Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492, see explanation on p. 104.

ENGINEERING

111 Engineering Graphics (3)
Fundamentals of drafting and use of instruments, lettering, geometric constructions, orthographic projection, auxiliaries, sections, fasteners, dimensioning, freehand sketching; axonemetric, oblique, and perspective views and fundamentals of working drawings. Basic construction and topographic drafting, inking, methods of reproduction; descriptive geometry, graphical solution of spatial point, line and plane problems. One lecture and three laboratory hours each week.

211-212 Plane Surveying (3-3)
Introduction to basic concepts in plane surveying, elementary geodetic surveying, and photogrammetry. Two lecture and three laboratory hours each week.

GEOGRAPHY

135 Introduction to Physical Geography (4)
Maps and map projections and their uses; analysis of the spatial distribution and character of environmental elements, including climate, land forms, vegetation, and soils. Three lecture and two laboratory hours each week.

145 Introduction to Human Geography (3)
Concepts and methods of human geography with emphasis on current problems related to the spatial distribution of population. Three hours each week.

215 Economic Geography (3)
Economic activities of man, their location and relation to physical and economic conditions of the environment. Three hours each week.

330 Elementary Cartography (3)
Techniques of drafting, map projection, and map design; methods of data representation on maps. One lecture and four laboratory hours each week.

335 Introduction to Geomorphology (4)
Prerequisite: Geography 135 or Geology 105. Description and classification of land forms; analysis of the geologic, climatic and biologic factors involved in their formation; survey of geomorphic provinces of the United States. Three lecture and two laboratory hours each week.

350 Historical Geography of the United States (3)
Prerequisite: History 231 or Geography 145 or consent of the instructor. A study of the evolution of the cultural landscapes and the spatial patterns of the area that is now the United States. Examination of past geographies and of geographical change through time. Three hours each week.

380 Regional Geography of the United States (3)
A regional analysis of physical characteristics, resource base and human geography of the United States. Three hours each week.

385 Regional Geography of Europe (3)
A regional analysis of the physical and cultural features of Europe. Three hours each week.

415 Industrial Geography (3)
Prerequisite: Credit in geography or economics or consent of instructor. Factors underlying the distribution, development and character of major world industrial regions. Three hours each week.

417 Urban Geography (3)
Prerequisite: Credit in a social science or in history or consent of instructor. Analysis of the spatial distribution, growth, function and structure of urban places with emphasis on urban development and problems in the United States. Three hours each week.

430 Climatology (3)
Prerequisite: Geography 135 or consent of instructor. The spatial distribution and character of climates, their relation to other elements of the environment and to human activities. Three hours each week.

432 Biogeography (3)
Prerequisite: Credit in physical geography or in geology or consent of instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their development by physiographic, climatic and evolutionary events of the past. Three hours each week.

455 Political Geography (3)
Prerequisite: Credit in a social science or in history or consent of instructor. Geographic factors in the development of nations and in contemporary national and international affairs. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Geography (2-3)
Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

GEOLOGY

105 Physical Geology (4)
Study of the earth and the moon; constitution of the earth's crust; weathering, erosional and depositional processes; mountain building forces and the earth's internal composition. Three lecture and two laboratory hours each week.

115 Historical Geology (4)
Geologic history of the earth; methods of interpreting the past; ancient environments; development and evolution of life. Required field trips. Three lecture and two laboratory hours each week.

120 (Environmental Studies 120) Environmental Geology (3)
Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

205 Introduction to Oceanography (3)
An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of oceanography; resources of the ocean. Required field trips. Three hours each week.

215 Mineralogy—4 hours
Prerequisite: Geology 105; *Corequisite:* Chemistry 101, including laboratory. A study of the principles of chemical bonding and crystaline structure in naturally-occuring solids, including native elements, and sulfide, oxide, halide, carbonate, sulfate, and silicate minerals; principles governing the geological occurrence of minerals; techniques of mineral identification: geometry of crystals. Required field trips. Three lecture and two laboratory hours each week. Fall.

216 Igneous and Metamorphic Petrology (4)
Prerequisite: Geology 215. Theories of genesis of the major igneous and metamorphic rocks in the light of chemistry, mineralogy, structure and texture, field associations, and experimental data. The relationship between igneous and metamorphic processes and crust-mantle tectonic activity. Required field trips. Three lecture and two laboratory hours each week.

217 Sedimentary Petrology (4)
Prerequisite: Geology 216. Introduction to the identification, classification and origins of sediments and sedimentary rocks. Emphasis is placed on physical processes controlling sedimentation and study of modern and ancient depositional environments. Three lecture and two laboratory hours each week.

305 Marine Geology (4)
Prerequisite: Geology 105. Topography, sediments, structure and geologic history of the marine and estuarine environment. Required field trips. Three lecture and three laboratory hours each week.

315 Stratigraphy (4)
Prerequisite: Geology 105 and 115. An introduction to the description, organization and classification of layered rocks. Emphasis is placed on the practical use of stratigraphic principles in elucidating earth history. Three lecture and two laboratory hours each week.

316 Structural Geology (4)
Prerequisite: Geology 216 or consent of instructor. Study of deformation of the earth's crust and interpretation of the structural relationships within rocks reviewed in light of plate tectonics. Required field trips. Three lecture and two laboratory hours each week.

330 Invertebrate Paleontology (4)
Prerequisite: Geology 105 or 115. History of fossil protistans and invertebrates with emphasis on the principles of paleontology, systematics and evolution, and on the use of fossils in stratigraphic correlation. Required field trips. Three lecture and two laboratory hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Geology (2-3)
Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492, see explanation on p. 104.

ECONOMICS

(See Business and Economics)

EDUCATION

Dr. Harkin, *Chairman*. Dr. Applefield, Dr. Bachner, Dr. Bartolome, Dr. Doss, Dr. A. Hayes, Dr. H. Hayes, Dr. Hulon, Dr. Spitzer, Mrs. Stike, Mrs. Wright, Dr. Wagoner.

200 Teacher, School, and Society (4)
This course will address two purposes: to orient the student to the role of the teacher and to provide the student with understanding of the structure and purposes of the professional education program which he is entering. Major topics of consideration will include socio-cultural, governmental, and organizational influences bearing on the role of teacher, careers in Education, systematic approaches to instruction, and analysis of classroom behavior. A variety of group and individual activities, including structured field experiences, will be provided. Three hours of instruction and two hours of field activity weekly.

201 Instructional Program Development I (3)
Prerequisite: Education 200 or permission of Department Chairman. The first of a two-part sequence designed to provide the conceptual tools and analytic skills necessary to plan, implement, and evaluate instructional programs, this course will focus on the fundamental components of instructional program development. Topics of study will include goal setting, theory building, prediction and hypothesis development, planning

strategies, task analysis, organization for instruction, and design of instructional systems. Three hours weekly.

202 Instructional Program Development II (3)
Prerequisite: Education 201. The second of a two-part sequence in instructional design, this course will develop further the specific skills in program development, critical analysis, and communication. Topics of study will include selection and evaluation of instructional resources, design of feedback systems, measurement, and data organization and interpretation. Three hours weekly.

275 Introduction to Exceptional Children (3)
The types of exceptionality including mental retardation, learning disabilities, speech and hearing, visual handicapped, emotional disturbance, physical handicapped and giftedness.

305 Educational Media Design and Production (3)
This course will provide students with an understanding of the design principles underlying the production of instructional materials and with the necessary production techniques. Emphasis will be placed upon the production of materials and their effective integration into an instructional unit. Students will design, produce, and evaluate a number of projects using techniques common to media programs in public schools. Three hours weekly.

315 History and Philosophy of Education (3)
Historical and philosophical foundations of education as related to the American school. Three hours each week.

325 School-Community Relations (3)
Required of students concentrating in early childhood education. Methods of improving school-community relations. Three hours each week.

335 The Teaching of Social Studies (3)
Prerequisite: Education 215. Materials and methods for teaching social studies. Three hours each week.

345 Black Literature and Resources for Teachers (3)
A survey of Black literature, including the examination of materials published for classroom use in the public schools and the authors who have made contributions to this field. Three hours each week.

355 Books and Materials for Early Childhood Education (3)
The selection and evaluation of books written for children. Appraisal of illustrations and other instructional media for preschool and primary children; their functions and correlation with the early childhood curriculum will be studied. Three hours each week.

361 The Teaching of Reading (3)
Basic principles and approaches to the teaching of reading; emphasis on the developmental skills taught on the K-3 level. Three hours each week.

365 Teaching of Arithmetic, Grades K-3 (3)
Prerequisite: Education 215. Study of methods and materials for the teaching of arithmetic kindergarten through third grade. Different theories of thinking and language development and implications for the teaching of arithmetic in the early grades will be studied. Three hours each week.

371 Improvement in Reading Instruction (3)
Prerequisite: Education 215. Development of reading skills and correction of reading deficiencies. Required for certification grades 4-12 (all subject areas). Three hours each week.

385 Introduction to Mental Retardation (3)
A survey course with emphasis on historical aspects, social and family relationships, characteristics, diagnosis, institutionalization and etiology of mental retardation.

386 Introduction to Learning Disabilities (3)
A survey course with emphasis on historical aspects, social and family relationship, characteristic, diagnoses and etiology of learning disabled.

390 Teaching Techniques for the Mildly Handicapped Child (3)
Prerequisite: Education 275 or consent of instructor. Development of the ability to use appropriate strategies, methods, techniques, and materials and the ability to design, implement, and evaluate learning programs for mildly handicapped children.

395 Formal and Informal Diagnostic Techniques in Special Education (3)
Various ways and means of evaluation and diagnosing learning difficulties of exceptional children.

396 Prescription Development in Special Education (3)
Prerequisite: Education 395 or consent of instructor. Development of educational prescriptions for exceptional children with emphasis on the mildly handicapped child.

415 Teaching Practices and Techniques (3)
Development of techniques of teaching; successful practices in teaching. Three hours each week.

425 Basic Philosophies of Education (3)
Philosophies of education and their influence on the curriculum. Three hours each week.

445 Guidance in the School (3)
Introduction to purposes, processes, organization and materials in counseling programs. Emphasis on nonspecialist viewpoint. Three hours each week.

459 Instructional Methods (6)
Corequisite: Education 460. *Prerequisite:* Education 215, 315, (or departmentally approved equivalents) and 361 or 371 as appropriate; Psychology 220 or 221 as appropriate and permission of the Education Department. Intensive examination of instructional methods in the student's area of specialization. Activities will be related to the student's practicum assignment, and emphasis will be placed on the development of instructional plans to be implemented in the practicum setting. Areas of specialization: Early Childhood Education (K-3); English; French; Intermediate Education (4-9); mathematics; music; physical education; science; social studies; Spanish.

460 Practicum (9)
Corequisite: Education 459. *Prerequisite:* As specified for Education 459. Students will be assigned full-time to practicum sites within their areas of specializations. During the course, students will engage in a variety of supervised instructional activities, assuming increasingly wider responsibility for class instruction. Practica are offered in the areas of specialization listed above under Education 459.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Education (2-3)
Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

ENGINEERING

(See Earth Sciences)

ENGLISH

Dr. Dodson, *chairman*. Dr. Collier, Dr. Corbett, Mrs. Foushee, Mr. McCall, Mrs. Pearsall, Dr. Powles, Dr. Rosselot, Dr. Stokes, Mr. Tucker.

101-102 Composition (3-3)
Work in grammar and various types of expository and persuasive writing; frequent themes. Three hours each week; students experiencing serious difficulties may be required also to attend a Writing Laboratory.

110 Introduction to Literature (3)
An interpretive study of various forms of literature.

211, 212 Great British Writers (3,3)
Prerequisite: English 102. 211: Writings before 1800; 212: Writings since 1800. Three hours each week.

219 General Fiction (3)
A thematic approach to fiction for students who enjoy extensive reading of current novels.

222 Literature of the Sea (3)
A survey of nautical literature, both fiction and non-fiction, with a general introduction to nautical language and sailing terms. Extensive reading in the literature.

245 Journalism (3)
Prerequisite: English 101. Introduction to news writing. Includes news stories, editorials, feature articles and reviews. Three hours each week.

301 Scientific Writing (3)
Prerequisite: English 102. Techniques and structure in scientific writing, emphasizing abstracts, proposals, progress reports, final reports, oral reports, journal articles, and professional papers.

305 Advanced Grammar (3)
Prerequisite: English 102. Systems of grammar; history of the English language. Three hours each week.

306 Advanced Composition (3)
Prerequisite: English 102. Rhetorical principles with emphasis on style; criticism of individual compositions. Three hours each week.

307-308 Creative Writing I, II (3-3)
307: *Prerequisite:* English 102. Instruction in writing fiction, including critical evaluation by instructor and class of student's original works. Three hours each week. 308: *Prerequisite:* Creative Writing I or consent of instructor. Intensive practice in writing fiction or poetry, with emphasis upon developing the individual student's interests and abilities. Three hours each week.

309 Poetry Writing (3)
Prerequisite: English 102. Instruction in writing poetry. Criticism and class discussion of original poems by students. Includes practice in various verse forms as well as developing students' individual abilities.

315 Twentieth Century European Literature (3)
Prerequisite: English 102. Three hours each week.

316 Romantic Literature (3)
Prerequisite: English 102. Major and minor poetry and prose, 1783-1837. Emphasis on new trends in poetry, the role of the artist, and Romantic critical theory. Three hours each week.

317 Victorian Literature (3)
Prerequisite: English 102. Poetry and prose from 1837-1901. Artistic achievements and literary movements. Intellectual and social problems of the Victorians reflected in their literature. Three hours each week.

320 Early American Literature (3)
Prerequisite: English 102. 17th and 18th century literature. Three hours each week.

321 American Romanticism (3)
Prerequisite: English 102. Literature from 1800-1865. Three hours each week.

322 American Realism (3)
Prerequisite: English 102. Literature from 1865-1900. Three hours each week.

325 Twentieth Century American Fiction (3)
Prerequisite: English 102. Three hours each week.

326 Southern American Literature (3)
Prerequisite: English 102. 19th and 20th century fiction. Three hours each week.

327 North Carolina Literature (3)
Prerequisite: English 102. Interpretive study of writers such as Thomas Wolfe, Randall Jarrell, and others. Three hours each week.

330 Interpretation of Poetry (3)
Prerequisite: English 102. A critical approach to theme, style, and form. Three hours each week.

333 Science Fiction (3)
Prerequisite: English 102. Major science fiction writers from Wells to the present.

335 Major Forms of Drama (3)
Prerequisite: English 102. Representative comedies, tragedies, and other forms from the classical to the modern period. Three hours each week.

336 The Short Story (3)
Prerequisite: English 102. Analysis and interpretation. Three hours each week.

339 Modern British and American Drama (3)
Prerequisite: English 102. A study of representative plays by such dramatists as Shaw, Yeats, O'Casey, Maugham, O'Neill, Hellman, Odets, Williams, Osborne, Pinter, and Miller, with attention to themes and techniques reflecting the social, political, philosophical, and aesthetic concerns of the twentieth century. Three hours each week.

341 English Novel of the Mid-1800's (3)
Prerequisite: English 102. Readings in various types of novels. Three hours each week.

345 Literature for Youthful Readers (3)
Prerequisite: English 102. For students in intermediate education (grades 4-9). Three hours each week.

351 Shakespeare: The Comedies (3)
Prerequisite: English 102. Three hours each week.

352 Shakespeare: The Tragedies (3)
Prerequisite: English 102. Three hours each week.

353 Shakespeare: The Histories (3)
Prerequisite: English 102. Three hours each week.

385 Soviet Russian Literature (in translation) (3)
Prerequisite: English 102. Interpretation of Russian literature since the Revolution, including an awareness of the effects of politics on that literature. Includes such writers as Mayakovsky, Bulgakov, Pasternak, Solzhenitsyn, and Yevtushenko.

412 Prose and Poetry of the English Renaissance (3)
Prerequisite: English 102. Development of the literary renaissance. Poetry from Skelton to Jonson, prose from More to Bacon. Three hours each week.

415 The Eighteenth Century (3)
Prerequisite: English 102. Major literary trends of the eighteenth century: neoclassical poetry and satire, the rise of the periodical and the novel, the shift to Romanticism. Includes Restoration poetry and drama. Three hours each week.

425 The English Novel (3)
Prerequisite: English 102. Representative works prior to 1915. Three hours each week.

426 The American Novel (3)
Prerequisite: English 102. Representative works from 1798 to 1900. Three hours each week.

430 Modern Poetry (3)
Prerequisite: English 102. Twentieth century British and American poets. Major trends in poetry from the Imagists to the present. Three hours each week.

455 Chaucer (3)
Prerequisite: English 102. Three hours each week.

456 Milton (3)
Prerequisite: English 102. Three hours each week.

460 World Masterpieces (3)
Prerequisite: English 102. Selections in translation from the world's best literature. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Seminar (1-3)
Prerequisite: English 102. Intensive study of a genre, author, period, or special topic.

499 Honors Work in English (2-3)
Prerequisite: Junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

ENVIRONMENTAL STUDIES

Dr. Bane, *chairman*. Dr. L. Adcock, Dr. Ahmad, Dr. W. Hall, Dr. H. Hernandez, Dr. Hosier, Dr. Jackson, Dr. Loftfield, Dr. Norris, Dr. Thayer.

106 (Physics 106) Environmental Physics (3)
A study of the environment and the interrelation of its physical systems. Emphasis on energy sources, efficiency of their use and the effect on the environment. Three hours each week.

120 (Geology 120) Environmental Geology (3)
Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

195 Introduction to Environmental Studies (3)
Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on current environmental problems. Three hours each week.

228 Mathematical Modeling with Applications to Environmental Problems (3)
Prerequisites: MAT 112, 115, or 122, CSC 111, any Statistics course. An introductory treatment of mathematical and computer modeling techniques which have application to environmental problems of an ecological, biological, social, economic, political and behavioral nature. Models to be examined will be both deterministic and stochastic and will include graph and network models, Markov processes, linear programming, Monte Carlo techniques, simulation, and game theoretic models. Group work will be especially encouraged.

305 (Economics 305) Environmental Economics (3)
Prerequisite: Economics 251, 252, or 205 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives. Three hours each week.

316 (Sociology 316) Human Ecology (3)
Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

333 (Chemistry 333) Analytical Chemistry in Environmental Problems (4)
Prerequisite: Chemistry 102. The theory and practice of (a) sampling and sample preparation (air, water, etc.); (b) selective methods of quantitative gravimetric and volumetric analysis; (c) instrumental techniques; and (d) monitoring systems. Two lecture and four laboratory hours each week will include graph and network models, Markov processes, linear programming, Monte Carlo techniques, simulation, and game theoretic models. Group work will be especially encouraged.

370 (Psychology 370) Environmental Psychology (3)
Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

490 Senior Project (1-6)
Prerequisite: Senior standing and permission of instructor. A research project and seminar under the supervision of a committee of environmental studies faculty. The project should involve the investigation of a current problem in the Environmental Studies field, and the preparation of a written report on the findings.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of the Environmental Studies Chairman.

495 Seminar in Environment Studies (3)
Prerequisite: Senior standing. Synthetic approach to the study of Environmental Science. Development of the "holistic" view of the environment, its interrelationship with science, technology, and society in a seminar format.

499 Honors Work in Environmental Studies (2-3)
Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

FRENCH

(See Modern Languages)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

GERMAN

(See Modern Languages)

HISTORY

Dr. Crowgey, *chairman*. Mr. W. Allen, Dr. Cooper, Dr. Gay. Mr. Haley, Mr. McLean, Dr. Moseley, Dr. Usilton, Dr. Watson.

111,112 Western Civilization (3,3)
111: History of civilization to 1650. 112: History of civilization from 1650 to the present. Three hours each week.

231,232 American History (3,3)
231: United States to 1865. 232: United States from 1865 to the present. Three hours each week.

305 The Ancient Near East (3)
Prerequisite: History 111-112 or consent of the instructor. An intensive political and cultural study of ancient Babylonian, Egyptian, and other Near Eastern civilizations. Three hours each week.

306 Ancient Greece and Rome (3)
Prerequisite: History 111-112 or consent of the instructor. A study of the civilizations of ancient Greece and Rome with special emphasis on the Greek classical period and the Pax Romana. Three hours each week.

311 Europe, 1815 to 1870 (3)
Prerequisite: History 111-112 or consent of the instructor. Development of Europe between 1815 and 1870, emphasizing industrial revolution, conservatism, liberalism, socialism, and nationalism. Three hours each week.

312 Europe, 1870 to 1918 (3)
Prerequisite: History 111-112 or consent of the instructor. Growing complexities of imperialism, democracy, and socialism in era leading into First World War. Three hours each week.

313 Europe, 1918 to 1945 (3)
Prerequisite: History 111-112 or consent of the instructor. Build-up and collapse of collective security; World War II. Three hours each week.

314 Europe, 1945 to the Present (3)
Prerequisite: History 111-112 or consent of the instructor. Contemporary Europe in the World Community. Three hours each week.

315 Medieval Civilization (3)
Prerequisite: History 111-112 or consent of the instructor. A study of medieval institutions and culture with special emphasis on feudalism, manorialism, and the religious system of the period. Three hours each week.

316 Political History of the Middle Ages (3)
Prerequisite: History 111-112 or consent of the instructor. A study of the political development of medieval Europe from the decline of the Roman Empire in the West to the emergence of the modern period. Three hours each week.

317 The Renaissance and the Reformation (3)
Prerequisite: History 111-112 or consent of the instructor. Origin and early development of modern European institutions with emphasis on cultural and religious achievements and on political and economic thought. Three hours each week.

325 Europe and Absolutism (3)
Prerequisite: History 111-112 or consent of the instructor. Europe in the Age of Reason and enlightened despotism, 1648-1789. Three hours each week.

326 The French Revolution and Napoleon (3)
Prerequisite: History 111-112 or consent of the instructor. Europe during French Revolutionary and Napoleonic War periods, 1789-1815. Three hours each week.

335 Diplomatic History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. American diplomatic activities and foreign relations since 1775. Three hours each week.

336 Constitutional History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. Development of the Constitution through decisions of Supreme Court; evolution of federal authority in relation to distribution of governmental power, society and economic life. Three hours each week.

337 Social and Intellectual History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. American life and thought from colonial period to present; special emphasis on institutions and ideas having lasting impact on Americans. Three hours each week.

338 Colonial History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. Formation and growth of American colonies to the conclusion of the French and Indian War (1763). Three hours each week.

339 Economic History of the United States (3)
Prerequisite: History 231-232 or consent of the instructor. An historical study of American agriculture, labor, industry, transportation, and banking with emphasis on the relation of the government to the economy. Three hours each week.

351,352 Latin American History (3,3)
Prerequisite: History 111-112 or History 231-232 or consent of the instructor. 351: Origins and development of Latin American colonies and their struggle for independence. 352: Political, economic, and social institutions and problems of Latin American nations from attainment of independence to present. Three hours each week.

361, 362 Afro-American History (3,3)
Prerequisite: 231-232 or consent of instructor. 361: Historical study of the black experience in America from its African origin to 1865. Emphasis is on the historical background and development of slavery; condition and attitude of free blacks; and the status of race relations in America. 362: Historical study of the Afro-American experience and race relations in America from 1865 to the present. Three hours each week.

400 Historiography (3)
Prerequisite: History 111-112 or History 231-232 or consent of the instructor.

434 The American Revolution, 1763-1789 (3)
Prerequisite: History 231-232 or consent of the instructor. Organization of empire, colonial social structure, events preceding revolution, the War for Independence, politics of the new nation, drafting and ratification of the new Constitution. Three hours each week.

435 The Early United States Republic (3)
Prerequisite: History 231-232 or consent of the instructor. Era from inauguration of George Washington through Jacksonian democracy to advent of American Civil War. Three hours each week.

436 Twentieth Century America (3)
Prerequisite: History 231-232 or consent of the instructor. The United States from 1900 to the present. Three hours each week.

445 North Carolina, 1524 to 1835 (3)
Prerequisite: History 231-232 or consent of the instructor. Political, economic and social development of North Carolina in the colonial and federal periods to the Constitution of 1835. Three hours each week.

446 North Carolina, 1835 to the Present (3)
Prerequisite: History 231-232 or consent of the instructor. Political, economic and social development of North Carolina in the nineteenth and twentieth centuries. Three hours each week.

447 The Old South (3)
Prerequisite: History 231-232 or consent of the instructor. The South from the colonial period to the Civil War with emphasis on political, economic, and social institutions distinctive to the South. Three hours each week.

448 The New South (3)
Prerequisite: History 231-232 or consent of the instructor. Aftermath of Reconstruction, rise of the New South, effects of industrialism, continuation and decline of sectionalism. Three hours each week.

449 The Civil War and Reconstruction (3)
Prerequisite: History 231-232 or consent of the instructor. The American Civil War and Reconstruction of the South through 1877. Three hours each week.

471,472 History of Great Britain (3,3)
Prerequisite: History 111-112 or consent of the instructor. 471: Roman Britain to 1688. 472: 1688 to the present. Three hours each week.

473 History of Canada (3)
Prerequisite: History 111-112 or History 231-232 or consent of the instructor. A brief survey of Canada under the French; development under British control; evolution of the Dominion; relations with the United States and British Commonwealth of Nations. Three hours each week.

474 History of Ireland (3)
Prerequisite: History 111-112 or consent of the instructor. A brief survey of the history of Ireland from Neolithic times to the present, with emphasis on the Celtic culture, Christian influences, and the religio-political conflicts of the 19th and 20th centuries. Three hours each week.

481,482 History of Russia (3,3)
Prerequisite: History 111-112 or consent of the instructor. 481: To the Bolshevik Revolution. 482: From the Bolshevik Revolution to the present. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in History (2-3)
Prerequisite: Senior standing. Individual study for honors students.

For 292 and 492, see explanation on p. 104.

MARINE BIOLOGY

(See Biology)

MATHEMATICAL SCIENCES

Dr. Toney, *chairman*. Mr. Brown, Dr. Burkhart, Dr. Crews, Dr. Dankel, Dr. Elliott, Dr. Greim, Dr. Gurganus, Dr. Halsey, Dr. Hernandez, Mr. Long, Mr. Lupton, Dr. Norris

Computer Science

105 Survey of Computer Applications (2)
An introduction to data processing for non-majors with an emphasis on understanding capabilities without engineering or programming skill. History and structure of computer systems. Concepts of simulation, operational control, information management, and time-sharing with related terminology. Types of errors in computer based systems. Social implications of the future potential of computer technology. Practice with using programs in the university library. Two hours each week.

111 Introduction to Computing Techniques (2)
Prerequisite or corequisite: Mathematics 111, 115, or 121. Algorithms and computer systems. Data representation. Organization and characteristics of computers. Survey of computers, systems, and applications. A programming laboratory must be taken concurrently. Two hours each week.

115 Programming Laboratory—FORTRAN (1)
Prerequisite or corequisite: Computer Science 111. Elementary programming techniques. Debugging and verification of programs. Computer solution of numeric problems. One two-hour laboratory each week.

116 Programming Laboratory—PL/1 (1)
Prerequisite or corequisite: Computer Science 111. Elementary programming techniques. Debugging and verification of programs. Computer solution of numeric and non-numeric problems. One two-hour laboratory each week.

117 Programming Laboratory—COBOL (1)
Prerequisite or corequisite: Computer Science 111. Elementary programming techniques. Debugging and verification of programs. Computer solution of management problems. One two-hour laboratory each week.

118 Programming Laboratory—Interactive (1)
Prerequisite or corequisite: Computer Science 111. BASIC programming. Debugging and verification of programs. Computer solution of problems using interactive techniques. One two-hour laboratory each week.

211 Assembly Language and Computer Organization (3)
Prerequisite: Computer Science 111. Computer structure, machine language, instruction execution, addressing techniques and digital representation of data. Computer systems organization, logic design, microprogramming, and interpreters. Symbolic coding and assembly systems, macro definition and generation, and program segmentation and linkage. Systems and utility programs, programming techniques, and recent developments in computing. Several computer projects to illustrate basic machine structure and programming techniques. Two lecture and two laboratory hours each week.

305 Computer Graphics (3)
Prerequisite: Computer Science 111 and Mathematics 213. Display memory generation of points, vectors, etc. Interactive versus passive graphics. Analog storage of images on microfilm, etc. Digitizing and digital storage. Pattern recognition by features, syntax tables, random nets, etc. Data structures and graphics software. The mathematics of three-dimensions, projections, and the hidden-line problem. "Graphical programs," computer-aided design and instruction, and animated movies. Three hours each week.

311 Programming Languages (3)
Prerequisite: Computer Science 332. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures. Three hours each week.

325 (Mathematics 325) Numerical Algorithms (3)
Prerequisite: Computer Science 111 and Mathematics 212. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

331 (Mathematics 331) Discrete Structures (3)
Prerequisite: Computer Science 111. Review of set algebra including mappings and relations. Algebraic structures including semigroups and groups. Elements of the theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science. Three hours each week.

332 Data Structures (3)
Prerequisite: Computer Science 111. *Prerequisite or Corequisite:* Computer Science 331. Basic concepts of data. Linear lists, strings, arrays, and orthogonal lists. Representation of trees and graphs. Storage systems and structures, and storage allocation and collection. Multilinked structures. Symbol tables and searching techniques. Sorting (ordering) techniques. Formal specification of data structures, data structures in programming languages, and generalized data management systems. Three hours each week.

340 Computer Organization (3)
Prerequisite: Computer Science 211 and 331. Basic digital circuits, Boolean algebra and combinational logic. Data representation and transfer, and digital arithmetic. Digital storage and accessing, control functions, input-output facilities, system organization, and reliability. Description and simulation techniques. Features needed for multiprogramming, multiprocessing, and realtime systems. Other advanced topics and alternate organizations. Three hours each week.

410 Compiler Construction (3)
Prerequisite: Computer Science 311 and 332. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping. Three hours each week.

415 Formal Languages and Syntactic Analysis (3)
Prerequisite: Computer Science 311 and 332. Definition of formal grammars: arithmetic expressions and precedence grammars, context-free and finite-state grammars. Algorithms for syntactic analysis: recognizers, backtracking, operator precedence techniques. Semantics of grammatical constructs: reductive grammars, Floyd productions, simple syntactical compilation. Relationship between formal languages and automata. Three hours each week.

420 Simulation Techniques (3)
Prerequisite: Computer Science 331, Statistics 361. Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to, or review of, queueing theory and stochastic processes. Comparison of discrete change simulation languages. Simulation methodology including generation of random numbers and variates, design of simulation experiments for optimization, analysis of data generated by simulation experiments, and validation of simulation models and results. Selected applications of simulation. Three hours each week.

425 (Mathematics 425) Numerical Analysis (3)
Prerequisite: Mathematics 315, Computer Science 325. A thorough treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers. Three hours each week.

431 Switching Theory (3)
Prerequisite: Computer Science 331. Switching algebra, gate network analysis and synthesis, Boolean algebra, combinational circuit minimization, sequential circuit analysis and synthesis, sequential circuit state minimization, hazards and races, and elementary number systems and codes. Three hours each week.

432 Sequential Machines (3)
Prerequisite: Computer Science 431. Definition and representation of finite state automata and sequential machines. Equivalence of states and machines, congruence, reduced machines, and analysis and synthesis of machines. Decision problems of finite automata, partitions with the substitution property, generalized and incomplete machines, semigroups and machines, probabilistic automata, and other topics. Three hours each week.

435 Theory of Computability (3)
Prerequisite: Computer Science 331. Introduction to Turing machines, Wang machines, Shepherdson-Sturgis, and other machines. Godel numbering and unsolvability results, the halting problem. Post's correspondence problem, and relative uncomputability. Machines with restricted memory access, limited memory, and limited computing time. Recursive

function theory and complexity classification. Models of computation including relationships to algorithms and programming. Three hours each week.

445 Systems Programming (3)
Prerequisite: Computer Science 311. Review of batch process systems programs, their components, operating characteristics, user services and their limitations. Implementation techniques for parallel processing of input-output and interrupt handling. Overall structure of multiprogramming systems on multiprocessor hardware configurations. Details on addressing techniques, core management, file system design and management, system accounting, and other user-related services. Traffic control, interprocess communication, design of system modules, and interfaces. System updating, documentation, and operation. Three hours each week.

475 Topics in Computer Science (3)
Prerequisite: Senior standing and permission of instructor. Topics of current interest in computer science not covered in existing courses. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Seminar in Computer Science (1)
Prerequisite: Junior or senior standing and consent of instructor.

499 Honors Work in Computer Science (2-3)
Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492, see explanation on p. 104.

Mathematics

In general, Mathematics is sequential in nature. Therefore, successful mastery of each course in a sequence is necessary in order to be adequately prepared for the next course. In light of this, it is strongly recommended that students obtain a grade of at least "C" before registering for the next course in a sequence. With special permission a student can repeat a course in which a "D" grade is obtained. Sequences offered where this guideline is applicable are Mat 111-112, Mat 121-122, Mat 111-112-225, Mat 115-225, Mat 111-112-211-212-213, Mat 115-211-212-213.

100 Foundations of Algebra (0)
Designed primarily for students not prepared for Mathematics 111 who need additional manipulative skills, particularly in algebra. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

101-102 College Mathematics for the General Student (3-3)
A terminal sequence designed for the general student and not intended as preparation for further mathematics courses. Cannot be substituted for Mathematics 111-112, 115, or 121-122. Algebraic and trigonometric functions with emphasis on fundamentals and applications rather than on manipulative skills, and an appreciation of other mathematical concepts, such as calculus, computers, geometry, probability, and statistics. Three hours each week.

111-112 Precalculus Mathematics (3-3)
Intended as a preparatory course for further mathematics, particularly the calculus. Fundamental operations, real number and order axioms, factoring, exponents, radicals, solutions of equations and systems of equations, circular functions, trigonometric relations, triangle solutions, variation, logarithms, functions and their inverses. Three hours each week.

115 Elementary Mathematical Analysis (3)
Prerequisite: Strong high school background including at least two years of algebra, one year of geometry, and a half-year of trigonometry. Designed for students with sufficient manipulative skill for calculus but lacking theoretical experience. Real and complex number systems, elementary set theory, functions and their inverses, mathematical induction, exponential and logarithmic functions, polynomial and rational functions, circular (trigonometric) functions and inverses. Three hours each week.

121-122 Finite Mathematics and Analysis (3-3)
Recommended for students concentrating in business and the social sciences. Sets, the real number system, fundamental operations, and inequalities, systems of equations and inequalities, matrices and determinants, logarithms, functions and graphs including straight lines and the conics, average and instantaneous rates of change, rules of differentiation with applications including maxima and minima and related rates, integrals of algebraic functions, area between two curves. Three hours each week.

211-212-213 The Calculus with Analytic Geometry (4-4-4)
Prerequisite: Mathematics 112 or 115. Functions and limits; differentiation with applications including maxima and minima, related rates, differentials and approximations; theory of integration with applications, equations of curves including the conic sections; transcendental functions, polar coordinates and parametric equations; infinite sequences and series; solid analytic geometry, partial derivatives; multiple integrals. Three hours lecture and two hours laboratory each week.

225 A Short Course in Calculus (3)
Prerequisite: Mathematics 112, 115 or 122. The differential and integral calculus with applications related to problems in the social and natural sciences. Little knowledge of trigonometry is required. Three hours each week.

228 Mathematical Modeling with Applications to Environmental Problems (3)
Prerequisites: MAT 112, 115, or 122, CSC 111, any Statistics course. An introductory treatment of mathematical and computer modeling techniques which have application to environmental problems of an ecological, biological, social, economic, political and behavioral nature. Models to be examined will be both deterministic and stochastic and will include graph and network models, Markov processes, linear programming, Monte Carlo techniques, simulation, and game theoretic models. Group work will be especially encouraged.

305 Mathematics for Elementary Teachers (3)
Prerequisite: Mathematics 101. Open only to students concentrating in elementary education and designed primarily for students specializing in intermediate education. Modern approaches to and principles of mathematics. Three hours each week.

315 Differential Equations (3)
Prerequisite: Mathematics 213. First order equations with variables separable, exact equations, Euler's method of approximate solution, linear equations of first order, applications, linear equations of higher order with constant coefficients, solutions by repeated linear first order equations, variation of parameters, undetermined scaling variables, applications to networks and dynamical systems, introduction to series-solutions. Three hours each week.

316 Introduction to Vector Analysis (3)
Prerequisite: Mathematics 213. Addition of vectors and operations with scalars and vectors; scalar, vector and triple products; vector and scalar derivatives; line, surface and volume integrals; theorems of Gauss, Green and Stokes. Three hours each week.

317 Intermediate Analysis (3)
Prerequisite: Consent of instructor. Sets and mappings; countable, connected, open and closed sets; sequences and convergence; continuity; metric spaces. Precision in statements of definitions, axioms and theorems, and rigor in proofs are emphasized. Three hours each week.

325 (Computer Science 325) Numerical Algorithms (3)
Prerequisite: Computer Science 111, Mathematics 212. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

331 (Computer Science 331) Discrete Structures (3)
Prerequisite: Computer Science 111. Review of set algebra including mappings and relations. Algebraic structures including semigroups and groups. Elements of the theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer sciences. Three hours each week.

335 Linear Algebra and Matrices (3)
Corequisite: Mathematics 213 or consent of instructor. Systems of linear equations, vector spaces, algebra of matrices and linear transformations, determinants, applications. Three hours each week.

336 Modern Algebra (3)
Prerequisite: Mathematics 335 or consent of instructor. Equivalence relations; groups, subgroups, normal subgroups, quotient groups; rings, subrings, ideals, quotient rings; rings of integers, fields of rational, real and complex numbers, polynominal rings. Three hours each week.

345 Modern College Geometry (3)
Prerequisite: Mathematics 212 or consent of instructor. Use of elementary methods in advanced study of the triangle and circle, special emphasis on solving original examples, comparison of Euclidean and non-Euclidean and projective geometries. Three hours each week.

346 Historical Development of Mathematics (3)
Corequisite: Mathematics 212 or consent of instructor. Development of mathematics from earliest systems to present century. Personalities involved, with the contributions of each. A problem-study approach to give the student some training in research. Three hours each week.

365 (Statistics 365) Probability Theory and Its Applications (3)
Prerequisite: Statistics 361. Fundamental concepts of probability theory including probability spaces, conditional probability, independence, central limit theorem, law of large numbers; formulation, analysis, and interpretation of probabilistic models in the natural, life, social, and managerial sciences, such as random walks, population models, queues, diffusion and learning models. Three hours each week.

411-412 Advanced Calculus (3-3)
Prerequisite: Mathematics 317. Advanced study of convergence, continuity, differentiation, and integration in R and R^n infinite series. Three hours each week.

415 Introduction to Complex Variables (3)
Prerequisite: Mathematics 411. Complex numbers, complex plane arguments and roots, conjugate coordinates, some definitions, the Cauchy-Riemann equations, Riemann surfaces, integration of analytic functions, Taylor series, Laurent series, the residue theorem. Three hours each week.

418 Topics in Analysis (3)
Prerequisite: Consent of instructor. An intensive study of a topic from applied or modern analysis, such as calculus of variations, partial differential equations, integral transforms, Fourier series, integral equations, special functions, tensor analysis, advanced ordinary differential equations, functional analysis, Lebesque integration, or generalized functions. May be repeated with consent of instructor. Three hours each week.

425 (Computer Science 425) Numerical Analysis (3)
Prerequisite: Mathematics 315, Computer Science 325. A thorough treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers. Three hours each week.

428 Topics in Applied Mathematics (3)
Prerequisite: Mathematics 315 or consent of instructor. Mathematical models of physical, biological, social, and communication phenomena are formulated, analyzed and interpreted. All interested students and faculty are invited to participate in the choice of problems and methods, and in the conduct of the course. Three hours each week.

435 Theory of Numbers (3)
Prerequisite: Mathematics 336. Divisibility, Euclidean algorithm, congruences, residue classes, Euler's functions, primitive roots, Chinese remainder theorem, quadratic residues, continued fractions, Gaussian integers. Three hours each week.

455 Introduction to Topology (3)
Prerequisite: Mathematics 336 or 317, or consent of instructor. Metric spaces, complete metric spaces, topological spaces, bases and subbases of a topology, separation axioms, compact and connected spaces, product topology. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing, consent of the department chairman, a "B" or better average on all mathematics courses taken.

495 Seminar in Mathematics (1)
Discussion of selected topics and problems. One hour each week.

499 Honors Work in Mathematics (2-3)
Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492, see explanation on p. 104.

Statistics

265 Introduction to Statistics (3)
Prerequisite: Mathematics 101, 111, 115 or 121. Collection, organization, analysis, and interpretation of numerical data obtained from various fields of study. Hypothesis testing, analysis of variance, correlation and regression. Three hours each week.

361 Introduction to Probability and Applied Statistics (3)
Prerequisite: Mathematics 211 or 225. Basic concepts of probability and statistics with an emphasis on applications. Elementary probability models, functions of random variables, distributions, sampling, data description, hypothesis testing, confidence intervals, tests of significance, goodness of fit, regression correlation, least square curve fitting, one-way analysis of variance. Three hours each week.

365 (Mathematics 365) Probability Theory and Its Applications (3)
Prerequisite: Statistics 361. Fundamental concepts of probability theory including probability spaces, conditional probability, independence, central limit theorem, law of large numbers; formulation, analysis, and interpretation of probabilistic models in the natural, life, social, and managerial sciences, such as random walks, population models, queues, diffusion and learning models. Three hours each week.

366 Mathematical Statistics (3)
Prerequisite: Statistics 361. Justification of elementary statistical procedures, together with an introduction to more advanced methods, such as experimental design, analysis of variance, regression, general linear and curvilinear models, partial correlation, and multiple regression. Three hours each week.

MEDICAL TECHNOLOGY

(See Biology)

MODERN LANGUAGES

Dr. Beeler, *chairman*. Mrs. Bellamy, Mrs. Cheek, Mr. Lowe, Dr. Mount, Dr. Perez, Dr. Sparks, Mr. Stites, Dr. Woodhouse.

A student who offers two high school units in French, German or Spanish, and who wishes to continue the study of the same language, will normally begin at the intermediate level. However, a student whose language placement test scores and high school language grades are not satisfactory will be placed in and granted credit for the elementary level. A student who offers three or more

high school units in French, German or Spanish, and whose placement test scores are sufficiently high, may gain admission to the 300 level courses in the language.

Modern Language

305 General Linguistics (3)
A descriptive study of the languages of the world, their history and development, with some attention to comparative grammar and phonology. Three hours each week. Fall.

306 Meaning and Language Change (3)
Development of word meanings from primitive roots to modern usage; changes in word meanings and forms due to both psychological and physiological factors; culture as "the silent language"; modern semantics, considering such phenomena as loaded words; euphemisms, and ameliorative and pejorative change in meanings; language as a vehicle for advertising and propaganda. Three hours each week. Spring.

Arabic

101-102 Elements of Written Arabic (3-3)
Primary emphasis on literary Arabic, with attention given to spoken colloquials of Egypt, Syria, Palestine, and Iraq as modern developments of classical Arabic. The oral approach is not used; rather the aim is to enable the student to read and to write the modern and classical language. Three hours each week. Fall and spring respectively.

201-202 Intermediate Arabic (3-3)
Continuing study of more advanced grammar. Readings from the Qur'an, philosophical texts, modern newspapers, and contemporary literature. Emphasis on writing Arabic; personal and business correspondence and original prose. Some attention to Arabic poetry of the classical period. Three hours each week. Offered on demand.

French

101-102 Elementary French (3-3)
Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken French; reading, writing, and basic conversation. Three hours each week. French 101, fall and spring; French 102, spring only.

105 French for Tourists (3)
General interest course, but designed specifically for those planning to travel in a French-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week. Spring.

201-202 Intermediate French (3-3)
Prerequisite: French 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas,

including literature, history, politics, sociology, religion and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanations of grammatical points when necessary. Three hours each week. Fall and spring respectively.

305 Conversation and Composition (3)
Prerequisite: French 202 or equivalent. Intensive training in spoken and written French. Three hours each week. Fall.

306 Advanced Grammar (3)
Prerequisite: French 202 or equivalent. Comparative grammar and translation; required of those preparing to teach at the high school level. Three hours each week. Fall.

307 Phonetics (3)
Prerequisite: French 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those preparing to teach at the high school level. Three hours each week. Spring.

311,312 French Civilization (3,3)
Prerequisite: French 202. Geographical, historical, and cultural aspects of France. 311: From prehistoric times to the French Revolution, 312: From the French Revolution to the present. Three hours each week. Fall and spring respectively.

321, 322 Survey of French Literature (3,3)
Prerequisite: French 202. Extensive readings covering the main currents of French literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. Three hours each week. Fall and spring respectively.

336 Explication De Texte (3)
Prerequisite: French 305 or equivalent. Training in French textual criticism; oral and written reports. Three hours each week. Spring.

405 Advanced Conversation and Composition (3)
Prerequisite: French 305 or equivalent. Emphasis on oral French, essay writing and translation. Recommended for students preparing for teaching. Three hours each week. Offered on demand.

425 French Literature of the Sixteenth Century (3)
Prerequisite: French 322 or equivalent. Major writers of the Renaissance: Rabelais, Ronsard, Du Bellay, Montaigne, and others; oral and written reports. Three hours each week. Fall 1977 and alternate years.

426 French Literature of the Eighteenth Century (3)
Prerequisite: French 322 or equivalent. Major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau, and others; oral and written reports. Three hours each week. Fall 1977 and alternate years.

430 The French Novel of the Twentieth Century (3)
Prerequisite: French 322. Readings, discussion and analysis of representative works of Proust, Gide, Malraux, Sartre, Camus, and others; oral and written reports. Three hours each week. Spring 1977 and alternate years.

435 The Nineteenth Century French Novel (3)
Prerequisite: French 322. Readings, discussion and analysis of major novels; romanticism, realism, and naturalism. Three hours each week. Fall 1978 and alternate years.

436 French Classicism (3)
Prerequisite: French 322. Readings, discussion and analysis of representative works with emphasis on dramatic literature of the 17th century: Corneille, Racine, and Molière. Three hours each week. Fall 1978 and alternate years.

437 French Lyric Poetry from Villon to Baudelaire (3)
Prerequisite: French 322 or equivalent. Major lyric forms from the Middle Ages to the 19th century; oral and written reports. Three hours each week. Spring 1977 and alternate years.

438 Masterpieces of French Drama (3)
Prerequisite: French 322 or equivalent. The theatre in France from the Renaissance to modern times. Representative texts; oral and written reports. Three hours each week. Spring 1978 and alternate years.

439 Masterpieces of French Prose Fiction (3)
Prerequisite: French 322 or equivalent. Representative works of imaginative French prose from the 17th century to the present; oral and written reports. Three hours each week. Spring 1978 and alternate years.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

495 Seminar in French Literature (1-3)
Prerequisite: French 322 or equivalent. Cooperative sttudy of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions. Fall and spring.

499 Honors Work in French (2-3)
Prerequisite: Senior standing and eligibility for honors program. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

German

101-102 Elementary German (3-3)
Emphasis on achievement of an active command of the language. Aural-oral practice, intensive study of the basic patterns of spoken German; reading, writing and basic conversation. Three hours each week. Fall and spring respectively.

201-202 Intermediate German (3-3)
Prerequisite: German 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including history, literature, religion, and the sciences. Composition and conversation to enable the student to apply and ex-

pand his knowledge of the language. Individual projects relating to the student's major field of interest. Three hours each week. Fall and spring respectively.

305 Conversation and Composition (3)
Prerequisite: German 202 or consent of the instructor. Intensive training in spoken and written German. Three hours each week. Fall 1978 and alternate years.

321-322 Survey of German Literature (3-3)
Prerequisite: German 202 or consent of instructor. Extensive readings covering the main trends of German literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. 321: Literature through Goethe. 322: Literature beginning with the *Romantiker*. Three hours each week. Fall and spring respectively, 1977-78 and alternate years.

350 Masterpieces of German Literature in English Translation (3)
Reading, discussion, and analysis of representative works by major German authors: Lessing, Goethe, Schiller, Kleist, Hebbel, Hauptmann, Mann, Hesse, and others. Knowledge of German not required. Three hours each week. Spring 1977 and alternate years.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

Portuguese

101-102 Elementary Portuguese (3-3)
Emphasis on the acquisition of an active and useful command of the language. Intensive aural-oral practice with the study of grammatical structures along with the pursuit of a reading and writing ability. Discussions to introduce the students to the culture of the Portuguese-speaking areas of the world, primarily Brazil and Portugal. Three hours each week. Fall and spring respectively.

201-202 Intermediate Portuguese (3-3)
Prerequisite: Portuguese 102 or equivalent. 201: A thorough and practical review and summarization of modern Portuguese. Introduction to readings of literary and intellectural value, as well as some materials of social and political interest. Continuation of the aural-oral practice in class. 202: Emphasis on reading for the student in subjects of various types. Materials drawn from fields such as history, politics, sociology, geography, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief grammatical explanations when necessary. Three hours each week. Fall and spring respectively.

Spanish

101-102 Elementary Spanish (3-3)
Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken Spanish;

reading, writing and basic conversation. Three hours each week. Spanish 101, fall and spring; Spanish 102, spring only.

105 Spanish for Tourists (3)
General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week. Spring.

201-202 Intermediate Spanish (3-3)
Prerequisite: Spanish 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanation of grammatical points when necessary. Three hours each week. Fall and spring respectively.

205 Business Spanish (3)
Prerequisite: Spanish 202 or equivalent. Designed for students who need familiarization with the terminology necessary for the fields of economics, business, accounting, natural sciences and others. Business correspondence in Spanish and the currency systems of the Spanish speaking countries are included. Three hours each week. Spring.

209,210 Masterpieces of Spanish Literature in Translation (3,3)
209: Study of the great works of Spanish literature of the Middle Ages and the Golden Age, including the *Poem of My Cid*, the *Book of Good* Love, the 'Celestina, *Lazarillo de Tormes, El burlador de Sevilla,* and *Don Quixote.* Reading and class discussion in English. 210: Representative works of the 19th and 20th centuries in Spain, including selections from Galdó, the Generation of '98, García Lorca, Camilo José Cela, and Ramón Sender. Reading and class discussion in English. Three hours each week. Fall and spring respectively.

305 Conversation and Composition (3)
Prerequisite: Spanish 202 or equivalent. Intensive training in spoken and written Spanish. Three hours each week. Fall.

306 Advanced Grammar (3)
Prerequisite: Spanish 202 or equivalent. Grammatical forms and usage; required of those who plan to teach at the high school level. Three hours each week. Fall.

307 Phonetics (3)
Prerequisite: Spanish 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those who plan to teach at the high school level. Three hours each week. Spring.

311, 312 Spanish and Spanish-American Civilization (3,3)
Prerequisite: Spanish 202 or equivalent. Geographical, historical and cultural aspects of Spain (311) and Spanish America (312). Three hours each week. Fall and spring respectively.

321,322 Survey of Spanish Literature (3,3)
Prerequisite: Spanish 202 or equivalent. Extensive readings covering the main currents of Spanish literature; emphasis in classroom discussions on textual analysis and criticism; oral and written reports. Three hours each week. Fall and spring respectively.

405 Advanced Conversation and Composition (3)
Prerequisite: Spanish 202 or equivalent. Emphasis on oral Spanish, essay writing and translation. Recommended for students preparing for teaching. Three hours each week. Offered on demand.

421,422 Spanish-American Literature (3,3)
Prerequisite: Spanish 322 or equivalent. 421: Representative works from colonial times to the Modernista movement. 422: Representative works from the Modernista movement to the present with emphasis on the novel and poetry. Three hours each week. Fall and spring respectively, 1978-79 and alternate years.

425 Twentieth Century Spanish Novel (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of representative novels from the Generation of 1898 to the present. Three hours each week. Spring 1978 and alternate years.

426 Twentieth Century Spanish Drama and Poetry (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of representative drama and poetry from the Generation of 1898 to the present. Three hours each week. Offered on demand.

430 Spanish Literature Before the Golden Age (3)
Prerequisite: Spanish 322 or equivalent. Epic and lyric poetry, the exemplar collections, *La Celestina*, the novels of chivalry, the sentimental novel, and the Moorish novel. Three hours each week. Offered on demand.

431,432 Golden Age Drama (3,3)
Prerequisite: Spanish 322 or equivalent. 431: Lope de Vega and his contemporaries. 432: Calderón and his contemporaries. Three hours each week. Fall and spring respectively, 1978-79 and alternate years.

433,434 Nineteenth Century Spanish Novel, Drama and Poetry (3,3)
Prerequisite: Spanish 322 or equivalent. 433: Costumbrismo, regionalism, and realism with emphasis on the novel. 434: Spanish drama from Moratin's neoclassic comedies to the Generation of 1898 with emphasis on the romantic and realistic theatre. Reading from representative authors of romantic poetry. Three hours each week. Fall and spring respectively, 1978-79 and alternate years.

435 Golden Age Prose (3)
Prerequisite: Spanish 322 or equivalent. The novel and short story with emphasis on Cervantes. Three hours each week. Fall 1977 and alternate years.

436 The Generation of 1898 (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of representative works; oral and written reports. Three hours each week. Offered on demand.

438 Eighteenth Century Spanish Literature (3)
Prerequisite: Spanish 322 or equivalent. Readings, discussion and analysis of major writers of the 18th century. Three hours each week. Offered on demand.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

495 Seminar in Spanish Literature (1-3)
Prerequisite: Spanish 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions. Fall and spring.

499 Honors Work in Spanish (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

MUSIC

Dr. Deas, *chairman*. Mr. W. Adcock, Dr. Burkholder, Dr. Lueft, Mrs. Ping, Mr. Steen, Mr. Thornton, Mr. Wiley.

082 Accompanying (1)
Prerequisite: Consent of instructor. Accumulative credit limited to eight semester hours. Student will be assigned an instrumentalist or vocalist with whom to work. One hourly class meeting per week, plus accompanying for lesson of soloist and adequate rehearsal time with soloist per week to prepare for the lesson of the soloist.

083 UNC-W Chamber Singers (1)
Select group drawn from the concert choir (086) by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsals per week.

084 Jazz Ensemble (1)
Prerequisite: Permission of instructor. The study and performance of modern jazz techniques and interpretation of popular styles, including instruction in improvisation. Members will be chosen from the Wind Ensemble (MUS 085). Two hourly rehearsals per week.

085 Wind Ensemble (1)
Open to any student who has had previous training or experience in instrumental music and who has the consent of the director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

086 Concert Choir (1)
Prerequisite: Auditions by director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

087 Orchestra (1)
Tuesdays 7:30-9:30 p.m. Auditions by director. Study and performance of the orchestral literature performed with the UNC-W/Community Orchestra which meets for a minimum of two hours per week and gives an average of four performances per year.

101-102 Theory I (3-3)
101: Concepts: Time, gesture, pitch. Fundamentals of notation. Functional tonality. Basis of tonal counterpoint: Two, three, and four voices. Analysis of Bach chorales, melodic structures. 102: Concepts: Continued. Application of basic concepts in analysis of 18th century music literature. Three lecture and two laboratory hours each week.

105 Rudiments of Music (3)
A general survey of the basic materials of music, including the study of musical rudiments, listening experiences, sight singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for Music Theory 101, and for students who wish to increase their knowledge of music. Three hours each week.

115 Survey of Music Literature (3)
Designed to increase the student's knowledge and appreciation of music; technical knowledge of music not required. Three hours each week.

116 History of Jazz (3)
A survey of the evolution of this American art form from its African roots and European influences to the present. Technical knowledge of music not required. Three hours each week.

117 American Music (3)
A survey of American composers, musicians, and music making (classical, folk and religious) from the earliest days of European settlement to the present. Technical knowledge of music helpful, but not required. Three hours each week.

125 Percussion (1 or 2)
Prerequisite: Consent of instructor. Private instruction in percussion instruments. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lession each week.

131 Chamber Music Workshop (1)
Open to any student who has had previous training and experience and who has the consent of the chairman of the department. Small instrumental and vocal ensembles. Type of group will depend upon availability of personnel and faculty instructor. Two hours per week. Accumulative credit.

133 Opera Workshop (3)
Prerequisite: Music 145 or consent of instructor. The musical preparation and staging of operatic scenes through dramatic interpretation, body movement, and improvisation. Three hours each week.

134 Choral Workshop (3)
Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening. Three hours each week.

135 Trumpet (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the trumpet. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

136 French Horn (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the French horn. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

137 Trombone (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the trombone. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

138 Tuba (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the tuba. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

139 Baritone (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the baritone. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

141 Class Voice (1)
Prerequisite: Consent of instructor. Singing techniques learned through vocal exercises and study of song literature. Two hours each week. Accumulative credit.

145 Voice (1 or 2)
Prerequisite: Consent of instructor. Fundamentals of vocal techniques and vocal literature. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

151-152 Class Piano I (1-1)
Prerequisite: Consent of instructor. Recommended for all students enrolled in Music Theory 101-102 and music majors who have not passed the piano proficiency examination. Laboratory hours as required.

155 Piano (1 or 2)
Prerequisite: Consent of instructor. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

156 Harpsichord (1 or 2)
Prerequisite: Consent of instructor. Private instruction in harpsichord. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

165 Flute and Piccolo (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the flute and piccolo. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

166 Oboe (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the oboe. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

167 Clarinet (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the clarinet. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

168 Bassoon (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the bassoon. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

169 Saxophone (1 or 2)
Prerequisite: Consent of instructor. Techniques and literature of the saxophone. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

175 Organ (1 or 2)
Prerequisite: Consent of instructor. Private instruction in organ. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

181-182 Class Strings (1-1)
Prerequisite: Consent of instructor. Class instruction in violin, viola, cello or string bass. Prior experience not required. Two laboratory hours each week.

185 Violin (1 or 2)
Prerequisite: Consent of instructor. Private instruction in violin. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

186 Viola (1 or 2)
Prerequisite: Consent of instructor. Private instruction in the viola. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

187 Cello (1 or 2)
Prerequisite: Consent of instructor. Private instruction in the cello. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

188 String Bass (1 or 2)
Prerequisite: Consent of instructor. Private instruction in the string bass. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

191-192 Class Guitar (1-1)
Prerequisite: Consent of instructor. Class instruction in classical guitar. Prior experience is not required. Two laboratory hours each week.

195 Classical Guitar (1 or 2)
Prerequisite: Consent of instructor. Private instruction in classical guitar. Accumulative credit. Two hours credit with one hour lesson each week; one hour credit with a half-hour lesson each week.

201-202 Theory II (3-3)
Prerequisite: Music 101-102. 201-202: Basic musicianship skills. 201: Music of the Medieval and Renaissance periods. 202: Music of the Baroque period. Three lecture and two laboratory hours each week.

203 Composition (1-3)
Prerequisite: Consent of instructor. A beginning study of the theory and practice of compositional techniques through direct application in original compositions. Course operated in connection with electronic music studio. Accumulative credit. Laboratory hours as required.

211-212-213 History of Music (2-2-2)
211: Stylistic development of music and related social and historical events of the Medieval and Renaissance eras. 212: Stylistic development of music and related social and historical events of the 17th and 18th centuries. 213: Stylistic development of music and related social and historical events of the 19th and early 20th centuries.

221 Percussion Methods (1)
Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

231 Brass Methods (1)
Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

251-252 Class Piano II (1-1)
Prerequisite: Music 152 or consent of instructor based on placement. Recommended for all music majors who have not passed the piano proficiency examination. Two laboratory hours each week.

261 Woodwind Methods (1)
Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

301-302 Theory III (3-3)
Prerequisite: Music 202. 301-302: Basic musicianship skills. 301: Music of the Romantic period. 302: Music of the 20th century. Three lecture and two laboratory hours each week.

303 Electronic Music (3)
Prerequisite: Any one of the following courses: Music 101, 105, 115, or 203 and consent of instructor. Electronic music studio techniques utilizing the facilities at the UNC-W Electronic Music Studio, including the Synthesizer AKS and ARP 2600 synthesizers. History of electronic music, analytical techniques. After the initial semester, concentration on compositional techniques through direct application in original compositions. Seminar plus laboratory hours as required. Accumulative credit. Two lecture and one laboratory hour each week.

306 Orchestration (2)
Prerequisite: Music 181-182, 221, 231 and 261, or consent of instructor. Techniques of transcribing, arranging, and scoring music for various instruments and instrumental combinations. Designed for students concentrating in music. Two hours each week.

325 Music Education for Elementary Teachers (3)
Approach to the teaching of music at the elementary level, including the use of piano laboratory. Three hours each week.

326 Methods in Music Education (2)
Corequisite: Education 459 and 460. Open only to students concentrating in music. Approach to the teaching of music at the elementary and junior and senior high levels. Two hours each week.

337 Vocal Methods (1)
Basic procedures of teaching voice with emphasis on the junior and senior high school levels. Materials for solo voice studied and performed. Two laboratory hours each week.

403 Advanced Composition (1-3)
Prerequisite: Music 203 and consent of instructor. Music majors only. Advanced study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

405 Choral Conducting (2)
Prerequisite: Music 306 or consent of instructor. Techniques of conducting choral ensembles with emphasis on periodic style and literature. Two lecture and one laboratory hour each week.

406 Instrumental Conducting (2)
Prerequisite: Music 306 or consent of instructor. Techniques of conducting applied to instrumental ensembles with emphasis on orchestral and band score reading, periodic style, literature, and rehearsal techniques. Two lecture and one laboratory hour each week.

490 Thesis (1)
A research thesis in a subject to be determined in consultation with the music faculty during the semester preceding the taking of this course.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Recital (1)
Consent of the music faculty.

499 Honors Work in Music (2-3)
Prerequisite: Eligibility for honors program and junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

NURSING

Miss Dixon, *director*. Mrs. Barfield, Mrs. Collini, Mrs. Lewis, Mrs. Lowe, Mrs. Otto, Mrs. Stone, Mrs. Thomas, Miss Whitfield.

110 Fundamentals of Nursing (6)
Corequisite: Biology 215. Introduction to the nursing profession and to the nursing process. Concept of adaptation explored with an overview of the many factors influencing health. Provision of learning experiences to utilize nursing skills to care for individuals who need help in meeting basic needs. Four lecture and six laboratory hours each week.

120 Nursing Intervention I (7)
Prerequisite: Nursing 110 and Biology 215. Focus is on planning and implementing nursing intervention for individuals presenting a variety of physical and psychological needs. The conceptual framework of stress-adaptation emphasizes the interrelationship of these needs. Four lecture and nine laboratory hours each week.

135 Nursing Intervention II (4)
Prerequisite: Nursing 120 and Biology 225. Provides a learning experience in psychiatric/mental health nursing. Emphasis is on the use of self as a therapeutic tool in nursing intervention. Nine lecture and nine laboratory hours each week.

220 Nursing Intervention III (9)
Prerequisite: Nursing 120. Focus is on planning and implementing nursing intervention for individuals presenting complex physical and psychological needs. Five lecture and twelve laboratory hours each week.

225 Nursing Intervention IV (9)
Prerequisite: Nursing 220. Focus is on planning and implementing nursing intervention to meet the needs of patients in the maternity, child, family cycle. Emphasis is on the family unit in the community setting as well as during hospitalization. Five lecture and twelve laboratory hours each week.

250 Nursing Seminar (3)
Prerequisite: Nursing 220. Provides an opportunity for an exploration of nursing in today's society with a focus on current trends and issues. Two lecture and three laboratory hours each week.

PHILOSOPHY AND RELIGION

Dr. Megivern, *chairman*. Mr. Duckett, Dr. Hall, Dr. McGowan, Dr. Robbins, Dr. Shinn.

Philosophy

101 Invitation to Philosophical Thinking (3)
An introduction to various philosophers and philosophical problems from historical, critical, and other perspectives.

110 Formal Logic (3)
Introduction to the principles of formal logic including the rules of deduction, the categorical syllogism, and a reading of Aristotle's *Categories* and *On Interpretation*. Three hours each week.

201-202 History of Western Thought (3-3)
201: Survey of classical philosophy, Greek and Roman sources of culture. 202: Survey of development of empiricism, Italian Renaissance to 18th century. Three hours each week.

203 Nineteenth Century Philosophy (3)
Survey of major philosophical movements of the century: Romanticism as reaction to Kant; Hegel; Schopenhauer; Utilitarianism; Marx; Nietzsche. New views of science: Wallace, Darwin, Loeb, Driesch, Mach, Pearson. Relationship of 19th to 20th century thought. Three hours each week.

205 American Philosophy (3)
An introduction to American philosophical thought, beginning with the origins of Pragmatism (C.S. Peirce and W. James) and proceeding through an examination of the thought of Royce, Santayana, Dewey and Quine.

211 Toward a Contemporary Philosophy of Man (3)
An effort to clarify the meanings of man as he presents himself in our contemporary world; oriented toward a theory of education and of psychology. Three hours each week.

305 Medieval Philosophy (3)
Prerequisite: Philosophy and Religion 101. The leading thinkers and issues from the 9th century rise of dialectics to the 14th century decline into Nominalism. Special attention to the 13th century climax in the works of Bonaventure, Albertus Magnus, and Thomas Aquinas. Three hours each week.

308 Plato (3)
Prerequisite: Philosophy and Religion 101. Study of the Dialogues of Plato: Analysis of texts; contemporary interpretations. Three hours each week.

309 Aristotle (3)
Prerequisite: Philosophy and Religion 101. An examination of Aristotle's philosophy through selected texts, supplemented with contemporary criticisms. Aristotle's criticisms of Plato; problems of interpretation. Three hours each week.

310 (Political Science 310) Legal Philosophy and Jurisprudence (3)
Prerequisite: Junior standing and/or the consent of instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include: Natural law; historical, analytical and sociological jurisprudence; idealism, utilitarianism and legal realism; equity, justice, precedent, custom and law, and the relation of law and morality. Three hours each week.

313 Social and Political Philosophy (3)
Prerequisite: Philosophy and Religion 101. An exploration of philosophical issues and concepts central to an understanding of social and political life, e.g., function and cause, justice, liberty, equality, societal facts and laws, utopias, reason and political argument, political obligation and the public interest.

315 Ethics (3)
Prerequisite: Philosophy and Religion 101. Examination of ethical theories, philosophical and religious; selection of particular issues to illustrate various styles, e.g., war, censorship, abortion, racism, bioethics. Three hours each week.

316 Aesthetics (3)
Prerequisite: Philosophy and Religion 101. Investigation and exploration into both traditional and contemporary theories regarding the philosophy of art and its associated problems. Visual arts, such as painting, sculpture, film, etc. will be examined.

317 Metaphysics and Epistemology (3)
Prerequisite: Philosophy and Religion 101. Selected readings from classical and contemporary sources on the nature of reality; the theories of knowledge resulting from Western man's reflection upon experience; contributions, e.g., of Plato & Aristotle, Descartes & Kant, Freud, Heidegger and Wittgenstein. Three hours each week.

318 Symbolic Logic (3)
Prerequisite: Philosophy and Religion 101. Fundamentals of an axiomatic logical system, including both the propositional calculus and the predicate calculus. Three hours each week.

344 Contemporary Jewish Thinkers (3)
Prerequisite: Philosophy and Religion 101 or consent of instructor. The thought of such people as Martin Buber, Franz Rosenzweig, Maurice Friedman and other contemporary philosophers/theologians will be examined.

345 Philosophy of Science (3)
Prerequisite: Philosophy and Religion 101. An interdisciplinary seminar with an emphasis upon student research in the history and practice of the philosophy of science. Collaboration of the biology, physics, and philosophy departments. Three hours each week.

401 The Philosophy of Immanuel Kant (3)
Prerequisite: Philosophy and Religion 101. An examination of the thought and influence of Kant in his three great critiques, especially the first, *The Critique of Pure Reason*, as well as in his *Groundwork of the Metaphysics of Morals*.

405 Contemporary Philosophical Thought (3)
Prerequisite: Philosophy and Religion 101. Primary source study of various philosophers of the 20th century, representing the major schools or movements. Three hours each week.

415 Existentialism (3)
Prerequisite: Philosophy and Religion 101. Basic themes in the thought of the leading existentialists and phenomenologists, including Kierkegaard, Nietzsche, Husserl, Jaspers, Heidegger, Sartre, Marcel, Merleau-Ponty, and Ricoeur. Three hours each week.

432 Philosophy of Religion (3)
Prerequisite: Philosophy and Religion 101. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Seminar (1-3)
Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary sources of student-selected philosophic and/or religious problems. Three hours each week.

499 Honors Work in Philosophy (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

Religion

141 Greek Grammar (3)
Basic study of the Greek language with special attention to that of the New Testament. Three hours each week.

231 Primitive and Classical Religions (3)
A survey of primitive religion as revealed both in archaeological research and remaining primitive customs; examination of classical faiths of Egypt, Mesopotamia and ancient Europe. Three hours each week.

232 Major World Religions (3)
A survey of Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity, and Islam; historical aspects, basic insights, texts, relevancy to contemporary man. Three hours each week.

235 Introduction to the Old Testament (3)
Historical study of the Hebrew, Canaanite, Sumerian, Babylonian, and Egyptian cultures, based upon primary literary and archaeological sources. Three hours each week.

236 Introduction to the New Testament (3)
Historical survey of the canonical Christian literature; illustration of contemporary methods of text-criticism, literary-criticism, form-criticism, and redaction-criticism; focus on results of modern scholarship in appreciating the Gospels and their function in the early Christian community. Three hours each week.

238 Early Christian Writers (3)
Survey of the basic works of the major Greek and Latin Christian Fathers from the late 1st century to the early 7th century. Special focus on the formative role of the first six "ecumenical" Councils, from Nicaea in 325 to Constantinople III in 680. Three hours each week.

242 Religion in America (3)
A survey of religious thought from colonial times to the present; representative Protestant, Catholic, and Jewish thinkers; the phenomenon of "civil religion", church involvement in social and political issues.

331 Luke-Acts (3)
Prerequisite: Philosophy and Religion 236. Analysis and interpretation of the two-volume work attributed to Luke, i.e., the third Gospel and the Book of the Acts of the Apostles; comparison of the former with the other two Synoptic Gospels, and significance of the latter for the emerging Christian movement. Three hours each week.

333 The Pauline Corpus (3)
Prerequisite: Philosophy and Religion 236. Analysis and interpretation of the major New Testament Letters attributed to Paul; focus on I & II Thessalonians, Philippians, I & II Corinthians, Galatians, and Romans. Three hours each week.

335 The Johannine Literature (3)
Prerequisite: P&R analysis and interpretation of the five New Testament writings attributed to John; survey of 20th century work on the Fourth Gospel; especially C.H. Dodd, R. Bultmann, C.K. Barrett, and R. Brown; the three letters and their significance; relation of the Book of Revelation to the foregoing.

337 Apocalyptic Literature (3)
Prerequisite: Philosophy and Religion 235, 236, or permission of instructor. A study of Jewish and Christian apocalypses, stressing general characteristics of 'apocalypse', historical and linguistic backgrounds, critical problems, and exegetical study, using Daniel, Ezechiel, and Revelation as examples. Three hours each week.

338 The Prophets of Israel (3)
Prerequisite: Philosophy and Religion 235. Primary source investigation of the Old Testament Prophets and their political, religious, socio-economic and historical background. Three hours each week.

339 Psychology of Religion (3)
A history of the interaction of modern psychology with the Western religious tradition from William James to the present; Freud and Jung, Allport and Menninger, Tillich and May, Hiltner and Pruyser, on such areas as faith and doubt, prayer and prejudice, symbol and guilt, authority and integration of personality. Three hours each week.

351 Reformation and Counter-Reformation (3)
An examination of the Reform movements in the Christian Church from the 12th to the 16th century; efforts of the Monastic and Mendicant Orders; Wycliffe, Henry of Langenstein, Gerson, Dietrich of Niem, John Major; Hus and Conciliarism; Erasmus, Luther, Zwingli, and Calvin; the Council of Trent and Ignatius Loyola. Three hours each week.

353 Church and State in Christian History (3)
A survey of the theoretical and practical problems encountered in the effort to find an appropriate relation of religion to politics; New Testament material, Constantine and Eusebius, Theodosius; Augustine and the "Holy Roman Empire"; the divine-right-of-kings and Machiavelli; Hobbes, Locke, Rousseau and the Social Contract; Jefferson and Franklin and the American experiment; 20th century role of the U.S. Supreme court. Three hours each week.

432 Philosophy of Religion (3)
Prerequisite: Philosophy and Religion 201 and 202. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

495 Seminar (1-3)
Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary source of student-selected philosophic and/or religious problems. Three hours each week.

For 292 and 492, see explanation on p. 104.

PHYSICAL EDUCATION AND RECREATION

Dr. Miller, *chairman*. Dr. E. Allen, Mrs. Batson, Mr. Bayley, Mrs. Blake, Mr. Brooks, Mr. Davis, Mr. Gibson, Mr. Honeycutt, Mr. James, Mrs. Kraft, Mr. Lane, Mrs. Lewis, Mr. Warner.

Physical Education

101 Foundations of Physical Education (1)
Study of immediate and long-term effects of physical activity and establishment of individualized programs for acquiring and maintaining physical fitness. One lecture and two hours of activity each week.

102 Physical Education Activity (1)
Prerequisite: Physical Education 101 or equivalent. Student may accumulate up to 7 hours credit in Physical Education 102, but is limited to one hour per semester. Three hours each week.

105 Personal Hygiene (3)
Major health problems of the day and how they relate to the individual. Three hours each week.

215 (Biology 215) Anatomy and Physiology (4)
Prerequisite: Credit in Biology or consent of instructor. Brief introduction to major biological principles as applied to study of human anatomy and physiology. Three lecture and three laboratory hours each week.

220 Sports Activities (1)
The following courses are designed to render the student skillfull in and knowledgeable about specific sports activities. Exposure to resource materials and teaching techniques appropriate to each sports activity listed as follows: aquatics, archery, badminton, baketball, dance, field hockey, football, golf, gymnastics, physical conditioning, soccer, softball, tennis, track and field, tumbling, volleyball, and wrestling. Three hours each week.

235 Principles of Health and Physical Education (3)
Introduction to the objectives, history, philosophies, trends, and professionalism of health and physical education. Three hours each week.

236 Athletic Officiating I (2)
Rules, officiating techniques, and problems arising in officiating, with emphasis on football, basketball, and baseball. One lecture and two laboratory hours each week.

237 Athletic Officiating II (2)
Rules, officiating techniques, and problems arising in officiating, with emphasis on volleyball, women's basketball, tennis, and badminton. One lecture and two laboratory hours each week.

305 Health Education (3)
The scope, development and procedures of health education as it relates to the student, health services and the healthful school environment. Emphasis upon the teacher's responsibility to the total school health program. Three hours each week.

306 Safety, First Aid and Athletic Injuries (3)
Fundamentals of administering first aid and treatment of athletic injuries. Three hours each week.

316 Applied Physiology of Exercise (3)
Prerequisite: Physical Education 215. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Two lectures and one laboratory session each week.

320 Methods of Teaching Motor Activity (3)
Emphasis on instructional methodology appropriate to teaching motor skills and sports activities, formulation of objectives, and lesson planning. Includes practicum in teaching. Three hours each week.

335 Readings in Physical Education (3)
A comprehensive review of literature in physical education and related areas. Three hours each week.

336 An Approach to Coaching (3)
The application of philosophical and psychological knowledge and principles to the administration and coaching of sports with special emphasis on research literature. Three hours each week.

355 Tests and Measurements in Physical Education (3)
Use and interpretation of elementary statistical techniques for evaluation and application of tests in physical education; review of current tests in motor ability, physical fitness, classification, sport skills, and knowledge. Three hours each week.

385 Physical Education for the Elementary Teacher (3)
Open only to students concentrating in elementary education. Emphasis on concepts, methods, materials, and activities basic to developing and conducting a program of physical education for elementary school children in a self-contained classroom. Students receiving credit for PED 385 may not enroll for PED 386. Three hours each week.

386 The Elementary Program and the Physical Education Specialist (2)
Prerequisite or corequisite: Physical Education 320. A study of elementary school physical education with special emphasis on teaching methodology, concepts, materials, activities, and comprehensive program planning. Students receiving credit for PED 386 may not enroll for PED 385. Two hours each week.

387 Movement Education (2)
Prerequisites: Physical Education 385 or 386. In-depth study of the theory, techniques, and methods of teaching movement education in the elementary school. Two hours each week.

415 Adapted Physical Education (3)
Prerequisite: Physical Education 215 and junior or senior standing. Problems relating to the physiological and kinesiological needs of the individual with physical limitations. Emphasis on the selection of activities that will provide opportunities for optimum development of which he or she is capable. Two lecture and two laboratory hours each week.

416 Advanced Physiology of Exercise (3)
Prerequisite: Physical Education 316 and consent of instructor. An in-depth study of human physiological adaptation to exercise and training. Emphasis on circulatory hemodynamics, respiratory function, thermal regulation, and blood chemistry during work. Primarily a laboratory experience. Three hours each week.

420 Practicum in Teaching Physical Education (2)
Prerequisite: Physical Education 320. (PED 420 must be taken before Education 459 and 460). Individualized, supervised practicum in teaching.

Experience complemented with weekly seminar on contemporary problems.

421-422-423-424-425-426 Methods of Coaching (2)
Emphasis on strategy, fundamentals, techniques, training and related duties. Two hours each week.
421 Baseball
422 Basketball
423 Football
424 Track and Field
425 Soccer
426 Volleyball

435 Organization and Administration of Health and Physical Education (3)
Prerequisite: Junior or senior standing. Analysis of problems involved in planning, organizing, and directing health and physical education programs. Three hours each week.

436 Intramurals (3)
Prerequisite: Junior or senior standing. The position of intramural activities in the overall program of physical education. Analysis of problems involved in the administration and organization with emphasis on the practical approach in school systems. Three hours each week.

440 Selected Topics in Physical Education (3)
Survey course for public school teachers with emphasis on updating traditional ideas and principles and introducing new ideas and problems in health and physical education. Three hours each week.

455 Advanced Tests and Measurements in Physical Education (3)
Prerequisite: Physical Education 355. Statistical techniques as applied to research in physical education; measurement and evaluation in areas of agility, balance, power, flexibility, kinesthetic perception and anthropometrics. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

499 Honors Work in Physical Education (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Recreation

265 Introduction to Recreation and Parks (3)
The scope, development, structure, purposes, functions, interrelationships of public, commercial, private and voluntary agencies engaged in rendering recreation and park services. This course should be a prerequisite for all other courses in recreation collateral. Three hours each week.

266 Program Planning for Recreation and Parks (3)
Prerequisite: Recreation 265. An introduction to programming for recreation and parks, including the majors areas of recreation, planning princi-

ples, objectives and evaluation. Program factors, such as scheduling, personnel, facilities, equipment, etc., will be considered. Three hours each week.

267 Practicum in Recreation (3)
Prerequisite: Recreation 265. Supervised experience in recreation and/or park setting. Will include administrative, supervisory, program leadership training in a recreation setting. Recreation problems in low income areas will be examined along with leadership training in special activities and programs. Three hours each week.

268 Social Recreation Leadership (3)
Prerequisite: Recreation 265. An introduction to methods and materials used in social recreation leadership in various settings. In addition to leadership in political subdivision settings, emphasis will be placed on social recreation leadership for special populations and for private and voluntary agencies.

365 Administration of Recreation and Parks (3)
Prerequisite: Recreation 265. Administrative practices related to recreation and parks services, including budget preparation; legal aspects of recreation and park services; fees and charges; public relations; recruiting, selecting and training personnel; personnel practices, etc. Three hours each week.

366 Water-Related Recreation and Park Facilities and Programs (3)
Prerequisite: Recreation 265. Principles and procedures of developing recreation facilities for water-related activities, such as pools, marinas, lake facilities, etc., and water-related programs, such as scuba diving, swimming, skiing, etc. Three hours each week.

367 The Arts and Recreation
Prerequisite: Recreation 265. Administrative problems involved in organizing quality cultural arts in recreation and parks departments and other leisure services agencies. Areas to be examined include financing, personnel, facilities, and equipment. Funding possibilities and relationships between the National Endowment for the Arts, State Arts Councils, Local Arts Councils, and Recreation and Parks Departments will also be studied.

368 Introduction to Therapeutic Recreation and Special Populations (3)
Prerequisite: Recreation 266. The recreation and park program for individuals and groups who are ill, handicapped, aged, or in other special groups conducted by tax-supported, voluntary, or private agencies found in the community, hospitals, penal institutions, or other special residences. Three hours each week.

369 Recreation for the Aged
Prerequisite: Recreation 368. To acquaint the student with the special wants and needs of the elderly; to provide insight into the physical, mental, social, and emotional problems of the aged. To make the student aware of the important role recreation plays in the lives of the aged.

370 Adaptive Activities and Facilities for Special Populations (3)
Prerequisite: Recreation 368. To introduce the student to procedures and methods of adapting recreational facilities, programs and activities to meet the needs of the handicapped.

465 Planning of Recreation and Park Areas and Facilities (3)
Prerequisite: Recreation 365. Study of planning standards and techniques will be considered. Standards for master plans will also be included. Students will develop plans for a recreation area and/or park as part of this course. Three hours each week.

467 Outdoor Recreation (3)
Prerequisite: Recreation 265. The scope, organization, and program activities using resources in large parks, forests, and primitive areas. Consideration will be given to private, local, state, and federal agencies concerned with outdoor recreation and these areas. Three hours each week.

469 Research Methods and Practices in Recreation and Parks (3)
Prerequisite: Recreation 365. Research techniques employed to solve problems in the recreation and parks field. Research projects, workshops and clinics relative to specific problems on an independent and group basis will be undertaken.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Seminar in Recreation (1-3)
Prerequisite: Recreation 365 or consent of instructor. Discussion of selected topics drawn from current literature. Discussions with various professionals from county, municipal, state, federal, and private recreation and park agencies.

499 Honors Work in Physical Education (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

PHYSICS

Dr. Clator, *chairman.* Dr. H. Hernandez, Mr. Nelson, Dr. Olszewski.

101-102 Elementary College Physics (4-4)
Corequisite: Mathematics 111. General physics designed for students in pre-professional programs and the biological sciences and for freshmen planning to concentrate in the physical sciences. Mechanics, heat, sound, light, electricity and magnetism and introduction to modern physics. Three lecture and two laboratory hours each week.

105 Introductory Physics (4)
Terminal course designed to cover basic principles of physics. Three lecture and two laboratory hours each week.

106 (Environmental Studies 106) Environmental Physics (3)
A study of the environment and the interrelation of its physical systems. Emphasis on energy sources, efficiency of their use and the effect on the environment. Three lecture hours each week.

107 Physics of Music (4)
Study of the scientific basis of music. Three lecture and two laboratory hours per week.

108 Meteorology (4)
Prerequisite: Mathematics 102 or 111. A study of the principles underlying atmospheric phenomena and applications to observational techniques. Three lecture and one laboratory hour each week.

201-202 General Physics (5-5)
Corequisite: Mathematics 211-212, respectively. 201: Mechanics, heat, wave motion and acoustics. 202: Electrostatics, magnetism, circuits, electrodynamics, optics, atoms, electrons, radio-activity and nuclear physics. Four lecture and two laboratory hours each week.

206-207 Problems in General Physics (2-2)
Prerequisite: Physics 101-102 and *corequisite:* Mathematics 211-212. Problems in general physics and their applications. Two problem sessions each week.

215-216 Electric Circuits (4-4)
Corequisite: Mathematics 211. Fundamental laws of electric circuits; transient and steady-state sinusoidal analysis of linear circuits by complex frequency; phasor and two-port networks. Three lecture and three laboratory hours each week.

225 Electronics (3)
Prerequisite: Consent of instructor. An introduction to electronics with emphasis on instrumentation and techniques used in scientific laboratories. Two lecture and two laboratory hour each week.

260 Introduction to Astronomy (3)
Corequisite: Mathematics 102. Descriptive course in principles, theories, and techniques of astronomy. Two lecture and two laboratory hours each week.

305 Science for Elementary Teachers (3)
Open only to students concentrating in elementary education and to in-service teachers. Biological and physical science areas appropriate for inclusion in elementary schools. Three hours each week.

315-316 Electricity and Magnetism (3-3)
Prerequisite: Physics 202 and *corequisite:* Mathematics 315, 316. Electric and magnetic field theory; Poisson's and Laplace's equations; harmonic methods, special methods for solution of electrostatic problems; material media and boundary value problems; electromagnetic waves and radiation; electromagnetic laws of optics. Three hours each week.

321-322 Mechanics (3-3)
Prerequisite: Physics 202 and *corequisite:* Mathematics 315, 316. Elements of Newtonian mechanics, mechanics of continuous media, La Grange's equation, rotation of a rigid body. Three hours each week.

335-336 Introduction to Modern Physics (3-3)
Prerequisite: Physics 202. Survey of important developments in atomic and nuclear physics, including relativity, atomic spectroscopy, X-rays and radio-activity. Three hours each week.

370 Photography (3)
Techniques and procedures in the use of photographic materials and equipment.

400 Advanced Laboratory (1)
Prerequisite: Consent of instructor. Designed to acquaint students with the various laboratory techniques, error analysis and reduction of data by digital computer. One hour each week.

405 History of Physics (1)
Prerequisite: Physics 202 and Mathematics 315. Survey of the growth of physical beliefs and concepts from Copernicus to present. One hour each week.

406 Mathematics Physics (3)
Prerequisite: Physics 202 and Mathematics 315. Designed to provide mathematics necessary for advanced undergraduate and beginning graduate study in physical sciences and to develop a strong background for students continuing into mathematics of advanced theoretical physics. Mastery of calculus and willingness to build on this mathematical foundation are assumed. Three hours each week.

425 Quantum Mechanics (3)
Prerequisite: Physics 315. Basic postulates of quantum mechanics; solution of the wave equation, angular momentum, and the origin of electron spin. Three hours each week.

435 Nuclear Physics (3)
Prerequisite: Physics 335; *corequisite:* Mathematics 315. Introduction to properties of the nucleus; natural and artificial radioactivity; nuclear reactions and particle accelerators. Three hours each week.

445 Optics (3)
Prerequisite: Physics 202; *corequisite:* Mathematics 315. Physical and geometrical optics, Huygen's principle, electromagnetic theory of light. Three hours each week.

455 Thermo-Physics (3)
Prerequisite: Physics 202; *corequisite:* Mathematics 315. Principles of thermodynamics and heat transfer; response of molecules to temperature effects illustrated by introduction to kinetic theory and statistical mechanics. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Physics Seminar (1-3)
Prerequisite: Consent of instructor. Discussion of selected topics in physics.

499 Honors Work in Physics (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 104.

POLITICAL SCIENCE

Dr. Dixon, *chairman,* Dr. Ahmad, Dr. Lowery, Dr. Wagoner.

111 Introduction to Political Science (3)
The study of political science as a discipline; its nature, methods and techniques. An introductory survey of existing knowledge about politics and political systems, including theories and characteristics of political institutions within and among nation-states. Three hours each week.

205 American National Government (3)
Introduction to American national government and politics. Emphasis on structure, processes, and basic principles such as federalism, separation of powers, and judicial review. Three hours each week.

206 American State Government and Politics (3)
A survey and analysis of the organization, functions, and political processes of the American states. Three hours each week.

207 American Urban Government and Politics (3)
A study of the structure, functions, political processes, problems and trends in American city and metropolitan government and politics. Three hours each week.

300,301 American Constitutional Law (3,3)
Prerequisite: Political Science 205. An intensive study of the Supreme Court decisions which have contributed to the contemporary interpretation of the United States Constitution. The treatment is analytical rather than historical. 300 is concerned with decisions involving the powers of the judicial, executive and legislative branches of the national government, the relationships among these branches, and the federal system. 301 (formerly 406) is a study of decisions involving the Bill of Rights, the 14th Amendment and other provisions which protect individual rights and liberties. Three hours each week.

302 Public Opinion and Democracy (3)
Prerequisite: Political Science 111 or 205 or consent of instructor. An examination of the origin, content, and policy impact of public opinion in democratic nations, with major emphasis on the contemporary American experience. Three hours each week.

303 Elections and Voting Behavior (3)
Prerequisite: Political Science 111 or 205 or consent of instructor. An evaluation of the impact of citizen beliefs and preferences on election outcomes. The course is structured around a critical examination of the assumptions, findings and interpretations of the major voting studies since World War II. Three hours each week.

304 Introduction to Public Policy Analysis (3)
A study of the theories and methods of analyzing and explaining public policy and the substance of recent domestic policies in the areas of public finance and human and physical resources, including welfare, education, protection of the environment, housing, health, urban renewal and transportation. Three hours each week.

307 The American Legislature (3)
Prerequisite: Political Science 205. Functional study of legislative bodies and lawmaking. Among the topics studied will be the role of legislatures; the impact of constituencies, parties, interest groups, interpersonal relationships and other pressures on legislators; legislative structure; and the decision-making process. Three hours each week.

308 Public Administration (3)
Prerequisite: Political Science 205. Introduction to public administration in the United States. Nature and scope of public administration, public interest in the administrative process, role of administrators, formal and informal organization, public personnel and financial management. Three hours each week.

309 The American Chief Executive (3)
Prerequisite: Political Science 205. An examination of the concept of a political chief executive as a coordinate member, with legislature and courts, of a government team. Emphasis will be placed on the powers, roles, decision-making processes, and institutional development of the offices of president, governor, and mayor. Three hours each week.

310 (Philosophy 310) Legal Philosophy and Jurisprudence (3)
Prerequisite: Junior standing and/or consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include natural law; historical, analytical and sociological jurisprudence; idealism; utilitarianism; legal realism; equity, justice, precedent, custom and law; and the relation of law and morality. Three hours each week.

311 Research Methods in Political Science (3)
An introduction to the rationale and application of both traditional and empirical methods of political analysis. Major topics include statement of problem, survey of literature, theory construction, data collection and analysis, and presentation of findings and conclusions. Three hours each week.

314 Modern Political Thought (3)
A critical examination of political ideas from 1500 to 1900 with special attention to those of Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, Hume, Burke, Hegel, Bentham, Marx, the Mills, Spencer, T. H. Green and Nietzsche. Three hours each week.

315 Contemporary Political Ideologies (3)
A study of the concept of ideology and its significance in the modern world. Systematic analysis of the major political ideologies of the 19th and 20th centuries with emphasis on democracy, communism, fascism, nationalism, anarchism, and the New Left. Three hours each week.

330 Political Systems of Africa (3)
The governments and politics of selected sub-Saharan African states. A survey from colonial days to the present with emphasis on the contemporary economic, social and political problems. Three hours each week.

335 European Political Systems (3)
Political institutions and processes of selected European countries, including Great Britain, France and Germany. Three hours each week.

336 Political Systems of the Soviet Union and Eastern Europe (3)
A comparative study of the political institutions and processes of the Soviet Union and the eastern European countries; the post-Stalin dynamics and the nature and significance of contemporary changes. Attention will be given to their foreign relations, especially with Communist China. Three hours each week.

338 Political Systems of the Middle East (3)
The governments and politics of the Middle East with emphasis on the changes that have occurred since 1945. A detailed examination of the forces that have shaped contemporary Middle Eastern politics: Islam, nationalism, modernization, and current political trends. The political institutions and processes and the domestic and foreign policies of selected countries will be studied. Three hours each week.

339 Political Systems of Asia (3)
The political systems of selected Asian countries. Special emphasis on the contemporary political, social and economic problems of India, Pakistan, Japan, China, Indonesia and other Asian countries. Three hours each week.

340 Blacks In American Politics (3)
Prerequisite: Political Science 111 or 205 or consent of instructor. A study of American political institutions and processes through the eyes of Black America. This study will analyze the power structure in the black community, dissent and protest, black participation in the political system, black leaders and politicians and their politics, and the uniqueness of black politics as compared with the wider spectrum of the political system. Three hours each week.

405 American Parties and Pressure Groups (3)
An historical and analytical treatment of the appearance and realignment of political parties during the five successive "national party systems" since the beginning of the republic. Special emphasis is given to the question of contemporary party disarray and potential realignment. Three hours each week.

407 The American Judical Systems (3)
Prerequisite: Political Science 205. Analysis of the organization, powers and role of the judiciary. Topics studied will include the political role of American judges, factors influencing judicial policy-making, selection of judges, the role of lawyers, and socio-metric relationships within the judiciary. Three hours each week.

415 American Political Thought (3)
American political thought from the colonial period to the present. Three hours each week.

425 International Politics (3)
Nature of International relations including analyses of basic factors motivating national policies; the United Nations and other international organizations as institutions for promoting peace and welfare in a world of sovereign states. Three hours each week.

426 International Law (3)
Prerequisite: Political Science 205. Nature, development and basic concepts of International law. Examination of scope, sources and sanctions

of international law; its relation to municipal law; the rights and duties of states and individuals; methods of settling international disputes. Characteristic cases used as illustrations. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of the department chairman.

495 Departmental Seminar (1-3)
Prerequisite: Six hours of Political Science and consent of the department chairman. Consideration of special topics in Political Science. May be repeated for additional credit.

499 Honors Work in Political Science (2-3)
Prerequisite: Eligibility for honors program and junior or senior standing. Individual study for honors students.

For 292 and 492, see explanation on p. 104.

PSYCHOLOGY

Dr. Williams, *chairman*. Dr. Bradley, Dr. Brown, Dr. Galizio, Dr. Gerstenhaber, Dr. Jackson, Dr. Kowal, Dr. Newton, Dr. Slager, Dr. Snyder.

105 General Psychology (3)
Principles of psychology with emphasis on scientific methods used in studying human behavior. Three hours each week.

105-51 General Psychology Laboratory (1)
Prerequisite or co-requisite: Psychology 105. Practice of laboratory methods used in the study of behavior. Two hours each week.

145 Psychology Applied To Human Life (3)
A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment. Three hours each week.

216 Educational Psychology (3)
Prerequisite: Psychology 105 is suggested. Application of psychology to education principles of learning, motivation, individual differences. Three hours each week.

220 Child Psychology (3)
Physical and psychological development of the human during childhood; problem areas emphasized. Three hours each week.

221 Adolescent Psychology (3)
Physical and psychological development of the human during adolescence; problem areas emphasized. Three hours each week.

225 Introductory Statistics for the Behavioral Sciences (4)
Prerequisite: Psychology 105 and three credit hours in mathematics. Introduction to the statistical techniques most often used by behavioral scientists for either descriptive purposes or hypothesis testing. Although emphasis will be upon parametric techniques, certain nonparametric tests will be included with consideration of which statistical procedures are appropriate with various experimental designs. Three lecture and two laboratory hours each week.

245 Drugs and Behavior (3)
Prerequisite: Three semester hours credit in Psychology. An examination of the psychological aspects of drug use and abuse. Emphasis will be on the effects of major psychoactive drugs (including alcohol) on behavior, the psychological determinants of drug use, and treatment of drug abuse.

310 Sensation and Perception (3)
Prerequisite: Psychology 105. A consideration of basic perceptual processes, problems of sensory processing, measurement of sensations, and simple and complex events. Such topics as perceptual cues, constancies, illusions, and person perception will be considered. Three hours each week.

318 Psychology of Motivation (3)
Prerequisite: Psychology 105. Psychology 355 is suggested. A study of the parameters and theories of motivation; both appetitive and aversive drives will be considered. These will be examined as they arise from physiological needs and from learning. Data from animal as well as human studies will be considered. Three hours each week.

322 Psychology of Exceptional Children (3)
Prerequisite: Three semester hours of psychology. A study of the characteristics and needs of impaired and gifted children. Three hours each week.

336 Industrial Psychology (3)
Prerequisite: Psychology 105. The study of psychological techniques in personnel selection and placement, merit rating, reduction of accidents, training, morale, and other factors utilized in industrial work. Three hours each week.

346 Psychology of Personality (3)
Prerequisite: Psychology 105. A study of the basic facts concerning the structure, organization, and adjustmental mechanisms of personality. Three hours each week.

347 Psychopathology (3)
Prerequisite: Psychology 105. The study of behavioral pathology. Emphasis will be placed on the underlying factors of the neuroses, psychoses, and character disorders. Three hours each week.

350 Principles of Behavioral Change (3)
Prerequisite: Psychology 105. Application of the principles of behavioral control in interpersonal, educational, and clinical settings. Primary emphasis will be on behavioral modification techniques such as contingency management, desensitization, biofeedback, etc.

355 Introduction to Experimental Psychology (4)
Prerequisite: Psychology 225. Techniques used in data collection, analysis, and reporting in behavioral experiments. Three lecture and two laboratory hours each week.

365 Social Psychology (3)
Prerequisite: Psychology 105. The study of behavior as a function of group situations. Three hours each week.

370 (Environmental Studies 370) Environmental Psychology (3)
Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

405 History and Systems of Psychology (3)
Prerequisite: Fifteen semester hours credit in psychology. History of psychology relative to current trends. Three hours each week.

410 Cognitive Psychology (3)
Prerequisite: Psychology 105 and 310 or consent of instructor. An introduction to theories of cognitive processing in humans as applied to the problems of memory, language, and perception with special emphasis on the role of organization. Three hours each week.

417 Psychology of Learning (3)
Prerequisite: Psychology 105. Psychology 355 is suggested. A study of the basic facts related to the learning process. The effects of reinforcement extinction, generalization, and discrimination are considered as well as other phenomena of the learning process. Three hours each week.

420 Developmental Psychology (3)
Prerequisite: Psychology 105; Psychology 355 is suggested. A study of the principles and processes underlying the changes occurring during the normal development of humans and non-humans. Motor, social and intellectual development are emphasized. Three hours each week.

425 Psychological Tests and Measurements (4)
Prerequisite: Psychology 105 and 225 or consent of the instructor. Introduction to theory and practice of test construction, including a survey of intelligence, achievement and personality tests and their applications. Three lecture and two laboratory hours each week.

449 Psychology of Death (3)
Prerequisite: Psychology 105. A study of psychological aspects of death and dying. Man's conceptualization of and behavior toward his own demise will be studied. Special emphasis will be placed on the behavioral context surrounding terminal illness, suicide, and homicide. Psychological aspects of gerontology will also be considered. Three hours each week.

450 Introduction to Counseling (3)
Prerequisite: Psychology 346 and 347. The major historical and contemporary theories of counseling including Freudian, client-centered, behavioristic and existential will be reviewed. Examination of each theory will be accompanied by demonstration and role-play situations in which the elements of each theory are explored. Three hours each week.

451 Supervised Counseling Practice (3)
Prerequisite: Psychology 450 and consent of instructor. This course will provide for supervision of student practice in application of counseling skills and techniques in a variety of in-service situations. The student will participate in supervised counseling experiences in local social service agencies. The emphasis will be upon practice of skills combined with regular consultation with the supervisor. May be repeated once for additional credit. Three hours each week.

452 Ethical Principles in Psychology (1)
Prerequisite: Permission of the instructor. A study of the ethical considerations involved in counseling and psychotherapy, psychological testing, and the use of human subjects in research. Three hours each week.

455 Psychological Experimentation (3)
Prerequisite: Psychology 355 and consent of instructor. Practical experience in the design and implementation of psychological experimentation. Each student will design and conduct an individual research project and a laboratory exercise for students in Psychology 255. Three hours each week.

456 Physiological Psychology (3)
Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of the anatomy of the nervous system and the roles which various neural structures play in the control of behavior. Three hours each week.

457 Animal Behavior (3)
Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of animal behavior including the traditional areas of ethology and comparative psychology. Primary emphasis is upon the similarities and differences in the behaviors of animals occupying various phylogenetic positions. Three hours each week.

465 Community Psychology (3)
Prerequisite: Psychology 105. Psychology 365 is suggested. A study of the contributions of psychology to the understanding of an individual's behavior as influenced by his community environment. A major consideration will be given to the problems associated with community mental health. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of department chairman.

495 Topical Seminar (1-3)
Prerequisite: Psychology 105 and consent of instructor. Discussion of selected topics in psychology. May be repeated for additional credit.

499 Honors Work in Psychology (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 104.

SOCIOLOGY AND ANTHROPOLOGY

Dr. Scalf, *Chairman*. Mrs. Blanks, Dr. Dixon, Dr. Faulkner, Mr. Fields, Dr. Loftfield, Dr. McCall, Dr. Polgar, Dr. Sabella, Ms. Tiblier, Mr. Wasson.

Anthropology

105 Introduction to Anthropology (3)
Introduction to the physical, archaeological, linguistic, and ethnological fields of anthropology; biological and cultural evolution of man. Three hours each week.

205 (Sociology 205) Human Societies (3)
Prerequisite: Anthropology 105. The evolution of man and societies. Societal evolution as seen as an extension of and/or parallel to biological evolution. A movement from simple to complex forms of societies as analyzed from an emphasis upon sustenance activity as the primary organizing principle of societies. Three hours each week.

206 Cultural Anthropology (3)
Prerequisite: ANT 105. A presentation of the content and historical development of cultural anthropology. Deals with the cultural relativism, ethnocentrism, institutional analysis and cultural integration and shifts in theoretical perspectives by comparing ethnographies of selected cultures. Three hours each week.

207 Archaeology (3)
The concepts and aims of archaeology, its history as a scientific discipline and its present role in the social sciences. Attention to basic principles in field work and to recent advances. Three hours each week.

208 Language and Culture (3)
Prerequisite: Anthropology 105 or consent of instructor. Human language, its characteristics and its relationship to other communication system will be examined. The use of language to illuminate historical relationships present sociocultural processes will be discussed, as well as ways in which one can investigate culture through cognitive structures elicted from speech. Three hours each week.

210 Evolution of Man and the Development of Culture (3)
Critical analysis of the fossil evidence leading to current theories of human evolution. Examination and correlation of fossil remains and artifacts preserved in the geologic record as related to the anatomy and behavior of living human and non-human primate groups. Three lecture hours each week.

302 Economic Anthropology (3)
Prerequisite: Anthropology 105. Primitive tribal and peasant economic systems are viewed through the use of case studies and theoretical materials. The aim of the course is to present an overview of the field by reviewing the major theoretical positions (and controversies). It further provides a brief critique of the development of economic anthropological theory. Three hours each week.

304 Indians of South America (3)
Prerequisite: Anthropology 105. This course will acquaint the student with human populations and their adaptations to the South American continent. Approximately equal emphasis is given to lowland tribes and Andean cultures. Both of these will be studied from an historic perspective spanning the entire period of man's presence on the continent. Three hours each week.

305 Indians of North America (3)
Survey of North America Indian tribes; subsistence patterns reflected through cultural adaptation to various ecotypes; archaeological analysis of the interplay of Asian and Mexican influences; restructuring of North American Indian cultures as a consequence of European influence. Three hours each week.

306 Principles of Kinship (3)
Prerequisite: ANT 105. This course deals with the structures and functions of kinship in a variety of cultures as a background for the study of complex cultural patterns. Three hours each week.

307 New World Archaeology (3)
Prerequisite: Anthropology 105. The entry of man into North America and South America will be examined using archaeological data. Other topics will include the post-Pleistocene expansion of big game hunters, woodland hunter-gathers, and the development of agricultural societies. Diffusion versus independent invention will be considered. Three hours each week.

308 Marine Archaeology: Methods and Theory (3)
Prerequisite: Anthropology 105, Anthropology 207 and diver certification. This course is designed to introduce the archaeologist to the field of underwater archaeology. Both classroom and field sessions will be required. Theory will be derived from the existing literature. The role of the archaeologist as an underwater scientist will be emphasized. Three hours each week.

309 Environment and Archaeology (3)
Prerequisite: Anthropology 207. An ecological framework for the study of prehistoric human populations is presented. Man-land relationships during prehistoric times are examined, as is the role of natural environment as a contributing factor in cultural and biological evolution. Three hours each week.

310 Marine Archaeology: Field Practicum (3-6)
Prerequisite: Anthropology 105, Anthropology 207, Anthropology 308 and diver certification (Anthropology 308 and Anthropology 310 may be taken concurrently). Practical field methods will be taught utilizing actual underwater prehistoric or historic sites. Survey techniques, excavation, record-keeping and preservation will be stressed and adapted to a submarine environment.

311 Field Methods in Archaeology (3-6)
Prerequisite: Anthropology 207. Practical field methods of land-site archaeology will be taught through the excavation of local archaeological sites. Scientific excavation, sampling, and preservation techniques will be presented as the basic tools of the archaeologist.

312 Historical Archaeology (3)
Prerequisite: Anthropology 105 and Anthropology 207. Substantive investigation of the special excavation and analysis procedures, subject matter, and goals of archaeology as applied to the historic past of North America. Special emphasis will be placed upon historic archaeological sites in the local (Southeastern North Carolina) region. Lecture, laboratory and field work involved. Three hours each week.

320 FOSSIL MAN (3)
Prerequisite: ANT/ERS 210 or consent of instructor. Classification and history of human evolution deduced from the fossil record. Discussion of Tertiary hominoids and emergence of humans with emphasis on Australopithecines and later Pleistocene hominids. Three hours each week.

322 Primate Biology and Ethology (3)
Prerequisite: ANT 105 or consent of instructor. Ecology, social behavior, and functional morphology and classification of living primates (prosimians, monkeys, and apes); their evolutionary history and development. Three hours each week.

324 Human Biological Variation (3)
Prerequisite: ANT 210 or consent of instructor. Nature and extent of heritable differences among human populations in evolutionary perspective. Consideration of effects of environmental factors on genic expression. Three hours each week.

350 Maritime Anthropology (3)
Prerequisite: Anthropology 105. A cross-cultural comparison of past and present maritime populations from selected parts of the world. Emphasis will be placed upon the natural environmental settings and related cultural adaptations. Both intra- and inter-group interaction will be stressed as well. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-3)
Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

499 Honors Work in Anthropology (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 104.

Criminal Justice

245 Police in a Changing Society (3)
Prerequisite: Sociology 105. Evolution of law enforcement systems and practices through the ages. Emphasis will be placed on the effects of societal changes and on survey of comparative police systems. Three hours each week.

255 The Criminal Justice System (3)
Prerequisite: Sociology 105. A study of the various components of North Carolina's criminal justice system will include an analysis of the structure and function of law enforcement agencies, the court system, corrections and probation systems. Three hours each week.

301 (Social Work 301) Methods and Techniques of Social Welfare and Rehabilitation Services (3)
Prerequisite: Sociology 105. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and the utilization of systematic processes of problem solving in the delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

306 (Social Work 306) Evaluative Methods for Service Agencies (3)
Prerequisite: Sociology 301, Mathematics 265 and one Computer Science course. Interviewing, participant-observation, enthnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

356 Critical Issues in Crimal Justice (3)
Prerequisite: Sociology 255. This course will be a study of crime, lawlessness, civil unrest and violence as issues relating to the administration of criminal justice, focusing on the current role of the system, the problems arising from attempting to fill that role, and some role modification that will improve the general operation of the criminal justice system. Three hours each week.

395 Corrections (3)
Prerequisite: Criminal Justice 255. An historical review of societal patterns of punishment, an in-depth analysis of the diversity of alternatives to incarceration, and an examination of practical data related to counselor-counselee relationships in correctional settings are course objectives. Three hours each week.

405 Criminal Justice Administration (3)
Prerequisite: Criminal Justice 255, 356 and consent of instructor. A concentration on management techniques for each administrative segment of criminal justice: the police, the courts, prosecution/defense, probation, parole and corrections. It will offer alternative models, based on a systems approach to function and role, that relate each criminal justice sub-system administratively to the others. Three hours each week.

490 Criminal Justice Practicum (3-6)
Prerequisite: Junior or senior standing and consent of instructor. A course designed to acquaint students with the criminal justice agencies of all governmental levels. Observation of agency programs and activities in applied criminal justice are integrated with formalized knowledge gained in the classroom to provide the student with beginning knowledge, skills and attitudes consistent with his career plans.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of instructor.

495 TopicalSeminar (1-3)
Prerequisite: Junior or senior standing and consent of instructor. Consideration of special topics not dealt with the regular courses.

For 292 and 492, see explanation on p. 104.

Social Work

235 Introduction to Social Work (3)
History, methods, and practice in professional social work in the United States. Three hours each week.

301 (Criminal Justice 301) Methods and Techniques of Social Welfare and Rehabilitation Services (3)
Prerequisite: Sociology 105. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and the utilization of systematic processes of problem solving in the delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

302 Social Work Methods II (3)
Prerequisite: Sociology 235 and Sociology 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problem-solving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected human service agency is required. Three hours each week.

303 Social Welfare and Rehabilitation: Services, Policies, Issues and Programs (3)
Prerequisite: Sociology 235. A problematic approach to situations that affect policies, issues, programs and services in social work and rehabilitation services. An attempt to aid the student in developing an analytical and critical understanding as he explores the motivation and methods by which social work and rehabilitation services policies and programs are being developed by our society and other countries. Three hours each week.

306 (Criminal Justice 306) Evaluative Methods for Service Agencies (3)
Prerequisite: Sociology 301, Mathematics 265 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

318 Social Work and Health Care Delivery
Prerequisite: SWK 235. An examination of the rationale, issues, problems and practices related to the implementation of client-centered health care. New programs and proposals for the delivery of health services will be reviewed systematically with reference to the implications for social work practice.

336 Suicidology and Crisis Intervention (3)
Prerequisite: Sociology 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventive techniques that are appropriate for individuals, groups and communities are explored. A common theoretical

frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crisis, as well as abnormal and accidental crises. Three hours each week.

396 Community Organization and Social Practice (3)
Prerequisite: Sociology 105. The course analyzes a variety of forms of community organization practice, focusing on definition of goals, values, roles and skills required for professional practice. Community organization is viewed as a process of bringing about desirable changes in community life. Community needs and resources available to meet these needs are studied. Three hours each week.

490 Social Work Practicum (3-6)
Prerequisite: Sociology 105, Social Work 235, 301 and 303. A field experience in selected social agencies designed to permit student application and integration of cognitive and affectual learning with a formalized service system. Learning experiences and content are designed to gain and demonstrate beginning knowledge, attitudes and skills which are consistent with the concepts of social practice. The student will participate in a two hour weekly seminar.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-3)
Prerequisite: Sociology 105. Social Work 235 and consent of instructor. A consideration of special topics not dealt with in regular courses.

For 292 and 492, see explanation on p. 104.

Sociology

105 Introduction to Sociology (3)
Science of human society emphasizing physical basis of society, culture, collective behavior, population, and social institutions. Analytical approach stressed. Three hours each week.

205 (Anthropology 205) Human Societies (3)
Prerequisite: Sociology 105. The evolution of man and societies. Societal evolution as seen as an extension of and/or parallel to biological evolution. A movement from simple to complex as analyzed from a focus upon sustenance activity as the primary organizing principle of societies. Three hours each week.

215 Modern Social Problems (3)
Social controls and the sociology of revolutionary change. Problems related to race, family, crime, delinquency, and social disorganization. Three hours each week.

225 Collective Behavior and Social Movements (3)
Prerequisite: Sociology 105. Analysis of social behavior breaking with existing patterns and expectations, such as riots, crowds, revolution, and social movements. Three hours each week.

305 Population (3)
Prerequisite: Sociology 105. A study of the changes in size, composition, distribution of population and the dynamics underlying them. Three hours each week.

306 Social Research (3)
Prerequisite: Sociology 105, Statistics 265, Computer Science 105. The core of this course will be built around an actual analysis experience utilizing interviewing, participant observation, ethnomethodology, evaluative research, analysis of data, its implication and research methods. Three hours each week.

307 Theory Construction and Non-Parametric Statistics (3)
Prerequisite: Sociology 306. The student will be introduced to the process of constructing theories relative to social relations. There will also be a segment of time used to introduce those nonparametric statistics that are most often used with either nominal or ordinal data. A segment of the course will also be devoted to introducing the student to SPSS computer programming. Three hours each week.

315 Urban Sociology (3)
Prerequisite: Sociology 105. Analysis of the history and development, social organization, and problems of the city. Three hours each week.

316 Human Ecology (3)
Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

325 American Minority Relations (3)
Prerequisite: Sociology 105. Analysis of inter-group relationships; basis of conflict, stratification and assimilation; nature, consequence, and sources of discrimination and prejudice; minority reactions to dominance. Three hours each week.

335 The Sociology of Deviant Behavior (3)
Prerequisite: Sociology 105. The analysis of certain behavior in terms of deviations from norms; the application of sociological and psychological concepts and theory to deviant behavior, and the critical evaluation of nonsociological research and theories. Three hours each week.

345 The Family (3)
Prerequisite: Sociology 105. Origin and development of the family as a social institution from an historical and comparative approach; analysis of forms and functions of the family: socialization, mate selection, procreation. Three hours each week.

346 Sociology of Religion (3)
Prerequisite: Sociology 105. An analysis of the structure, function and process of religion, emphasizing the reciprocal relation of religion and culture and religious differentiation and institutionalization. Three hours each week.

347 Sociology of Education (3)
Prerequisite: Soc. 105. An examination of the socio-cultural factors operating at various levels of the educational process, from classroom to school system to community, in light of the changing roles of the child and education in a complex industrial society. Three hours each week.

350 Sex Roles in Society (3)
Prerequisite: Sociology 105. The differentiation of both ascribed and achieved roles in modern society based on the variable of sex of the individual, conditions which serve to maintain or to weaken the normative patterns, and consideration of some of the consequences of differentiation. The effects of sex-role socialization on political, occupational, and educational behavior, with emphasis placed on stability and change. Three hours each week.

355 Criminology (3)
Prerequisite: Sociology 105. The nature, variation and causes of crime are studied as aspects of the American culture. Three hours each week.

365 (Psychology 365) Social Psychology (3)
Prerequisite: Sociology 105 or Psychology 105. The study of behavior as a function of group situations. Three hours each week.

366 Social Change (3)
Prerequisite: Sociology 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change, direction of change, mechanism of change, and planning of change. Three hours each week.

375 Juvenile Delinquency (3)
Prerequisite: Sociology 105. The analysis and description of the problem of juvenile delinquency as it exits in a changing contemporary society. Three hours each week.

385 The Community (3)
Prerequisite: Sociology 105. A study of social organization and process in modern communities with stratification, power structure and disorganization being accentuated. Three hours each week.

386 Occupations and Social Structure (3)
Prerequisite: Sociology 105 and three additional hours in Sociology or Economics. An analysis of the place of work in society. This course examines occupational structures as the primary link between persons and the larger society. Topics to be included are the growth and development of occupational structure, occupations and technological change, occupations and status, occupations and organizational complexity, and other system features which influence or are infleunced by the occupational structure. Three hours each week.

415 Social Classes (3)
Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Study of one of the basic structures in society, its nature and functions. Also provides socio-psychological discussion of American society from the perspective of the stratification system, with consideration of the life style and value system of each major social class category. Three hours each week.

445 Complex Organizations (3)
Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Examination of theory and research on structure and processes of large scale formal organizations in Western society; consideration of industrial-commercial governmental, religious, military, political and educational organizations. Three hours each week.

455 Social Theory (3)
Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. A review of the significant trends of development in sociological theory with emphasis on the relationship of theory to research. Three hours each week.

466 Social Planning (3)
Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Examination and analysis of the theories and processes of social planning including the critical review of directed social change, social intervention, and organizational adaptation. Three hours each week.

490 Senior Project (3)
Prerequisite: Sociology 105, 405, 406 and senior status. A personal study of a segment of the community will be undertaken by each major. There will be an analytical paper written after actual data has been acquired preferably through a personal confrontation within an institutional setting. Three hours each week.

491 Directed Individual Study (1-3)
Prerequisite: Junior or senior standing and consent of instructor.

495 Topical Seminar (1-3)
Prerequisite: Sociology 105 and consent of instructor. Consideration of special topics not regularly dealt with in regular courses.

499 Honors Work in Sociology (2-3)
Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292, and 492, see explanation on p. 104.

SOCIAL WORK

(See Sociology and Anthropology)

SPANISH

(See Modern Languages)

STATISTICS

(See Mathematical Sciences)

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FACULTY

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